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EXPORT MARKETS FOR HIGH-VALUE VEGETABLES FROM TANZANIA

AN AMAP BDS K&P TASK ORDER STUDY

JULY 2007

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ACRONYMS

ACP	Afro-Caribbean Pacific countries signatory to the Lomé Convention
AFC	Agriculture Finance Corporation
AYR	all year round
BRC	British Retail Consortium
CAP	Common Agricultural Policy of the European Union
CIF	cost, insurance, and freight
COLEACP	Europe/Africa-Caribbean-Pacific Liaison Committee
COMESA	Community of East and Southern Africa
CSR	corporate social responsibility
DEFRA	(U.K.) Department of Environment, Food and Rural Affairs
EU	European Union
EurepGAP	European Retailer Protocol on Good Agricultural Practice (now GlobalGAP)
FDI	foreign direct investment
FOB	free on board
FPEAK	Fresh Produce Exporters Association of Kenya
FPJ	<i>Fresh Produce Journal</i> (U.K.)
GAP	good agricultural practices
GCC	Gulf Co-operation Council
GlobalGAP	Global Retailer Protocol on Good Agricultural Practice (formerly EurepGAP)
HACCP	Hazard Analysis and Critical Control Points
HCDA	Horticultural Crop Development Agency (of Kenya)
HMI	(UK) Horticultural Marketing Inspectorate
HoReCa	hotel-restaurant-café
IFC	International Finance Corporation
ISO	International Standards Organization
KFC	Kenya Flower Council
MOU	memorandum of understanding

NGO	nongovernmental organizations
NPD	new product development
PEACH	Procedure for the Application for Certificates from the HMI
TAHA	Tanzania Horticultural Association
TNS	Taylor Nelson Sofres
UNECE	United Nations Economic Commission for Europe
USP	unique selling proposition
WTO	World Trade Organization

PREFACE

This study was commissioned to DAI and funded by the United States Agency for International Development (USAID) under the Accelerated Microenterprise Advancement Project Business Development Services Knowledge and Practice (AMAP BDS K&P) Task Order. Its main objective is to assess and analyze key European Union (EU) and other end markets for high-value vegetable exports from Tanzania. Contributing to the overall objective of assessing the export potential of Tanzania's vegetable sector, the study presented here complements a second AMAP BDS K&P study focused on vegetable production in Tanzania and conducted for USAID by ACDI/VOCA and the Louis Berger Group. While the end-market study looks at supply chains from the Tanzanian border onward (perspective of an outsider looking in), the production study looks at supply chains up to the Tanzanian border (perspective of an insider looking out). Both research efforts were coordinated throughout.

The end-market study was executed in two stages. In stage 1, DAI commissioned Promar International to carry out a desk-based research on the topic, complemented with limited telephone interviews. Promar International is a U.K.-based consulting and research group with extensive experience in the produce retailing sector. Work was carried out over the period September to December 2006. Based on comments from DAI, a first draft desk-study report was submitted in February 2007. This desk study forms the bulk of the final report presented here. In Stage 2 (May 2007), DAI staff, with assistance from Promar International, interviewed key informants in the U.K. and the Netherlands to confirm or disconfirm the desk-research findings and to obtain further insights that could only be derived from primary sources. Details on the companies contacted for this research are presented in Section 6 of this report. The findings from these interviews were combined with those of the desk study to produce the final report presented here.

For further information on this study please contact Dr. David Neven at DAI, the lead researcher and final technical editor of this report (david_neven@dai.com, 301 771 7831).

1. INTRODUCTION

This study centers around the potential for Tanzania to export high-value and baby vegetables, including snow peas, sugar snap peas, French green beans, and a range of baby vegetables, including carrots, corn (maize), leeks, zucchini (courgettes), pattypan squashes, broccoli, cauliflower, and eggplants (aubergines), to the European Union (EU). These products were identified in previous work carried out in Tanzania as having similar agro-climatic requirements and high export potential. For this end-market study, the products will largely be treated as a bundle unless more detailed information is available and relevant.

The study has multiple objectives. First, the study aims to understand 1) where Tanzanian products are currently being exported to in terms of end-user markets, 2) how and in what volumes products flow through the supply chain after leaving Tanzania, and 3) what have been the observable changes over time. Secondly, the study aims to understand what the strategic end markets of interest to Tanzania will be, how target markets are structured, how Tanzania is viewed from the buyers' perspective, and what Tanzania can learn, in particular from the Kenyan example (see box).

Key research topics identified for the study include:

- The size of the market for the products subject to this study;
- The key market channels;
- How quality and price are determined in target markets;
- Price points and approximate marketing margins at different levels of the supply chain;
- Volume requirements for different buyers and channels;
- Sanitary and phytosanitary standards (SPS) and other EU import requirements and standards;
- Trends in the market for organic and fair trade products and other niche market opportunities;
- Consumer perceptions of imports versus locally grown products;
- Logistical requirements and challenges;
- Current and anticipated trends in requirements from retailers, foodservices, and industrial buyers, and how this may affect the ability of Tanzanian fruit and vegetable exporters to trade into the key EU markets;
- Current and anticipated demographic trends and consumer preferences, and how affect the Tanzanian fruit and vegetable export sector; and

Kenya as the Benchmark

Kenya is the leading supplier of off-season horticultural products to the EU, with an impressive track record going back 25–30 years. Growers are well organized and efficient. Well-managed exporters are clustered around the main point of exit at Nairobi International Airport, where state-of-the-art cold storage facilities are present. While there are some concerns over the cost of air freight and the limited availability of air cargo space, the infrastructure at Nairobi far exceeds anything to be found at any other East African exporting country. Interviews with leading EU fresh produce importers confirmed that the Kenyan off-season vegetable industry sets the standard, not just for East Africa, but indeed for the rest of the world. Kenya can supply all year round and is consistently price-competitive. Other countries may have better prices some times in the year, but they cannot supply, or supply at much higher prices, at other times in the year. Any new supplier (e.g., from Tanzania) will be measured against this benchmark: what does the new supplier bring that the importers do not already get from Kenya?

- The current buyer perceptions of Tanzanian products and their competitiveness in the market.

The report is structured as follows:

- **The Executive Summary** presents an overall summary, details of our key conclusions, and recommended next steps;
- **Section 3** describes the overall market for vegetable imports to Europe;
- **Section 4** provides further details on the markets for vegetables in the U.K., France, the Netherlands, and Germany as the key European markets to target;
- In less detail, **Section 5** describes alternative target markets in the Middle East and Southern Africa; and
- **Section 6** lists further supporting information and references.

2. EXECUTIVE SUMMARY, KEY CONCLUSIONS AND RECOMMENDATIONS

BACKGROUND

USAID commissioned DAI to carry out a study on export markets for high-value vegetables from Tanzania. Desk-based research was carried out between September and December 2006. Key informant interviews were conducted in May 2007. The summary table on pages 4–5 outlines key trends and strategic options for consideration.

THE EU MARKET: AN OVERVIEW

Most EU countries have a well-developed domestic vegetable production industry. However, most of this relies on relatively high-cost structures, compared to other parts of the world. In the future, it is likely that more vegetables will be sourced from either Eastern Europe and/or from other so-called “third countries” of supply, such as the countries of Central America, North Africa, and East and West Africa—all of which have much lower production cost structures.

KEY EU MARKET TRENDS AND DEVELOPMENT OF MARKET NICHEs

Prosperity has increased across Europe over the years, which has, in turn, changed the eating habits of consumers and the sophistication of the food and drink market. European consumers eat a hugely diverse range of fresh fruits and vegetables from all over the world, delivered on the basis of the supply calendars of international growers and the seasonal supply of Europe’s own production. On the whole, throughout Europe, populations are getting older, immigrant populations are growing, average household sizes are getting smaller, and there is an increase in single-person households. This has led to an increased demand for snack and convenience food and to smaller, more frequent shopping trips.

Apart from the traditional requirements, such as price and quality, that still govern most buying decisions, many European consumers now increasingly look for food that is convenient, healthy, ethically sourced and traded, and/or organic, or that can be regarded as exotic, fashionable, and/or a premium product. Indeed, consumption of exotic fruits and vegetables (such as mangoes, passion fruit, and avocados) has boomed since the 1970s. This was initially partly due to higher demand from growing immigrant populations in Europe from the Caribbean, Africa, and Asia. However, over time (due to highly effective marketing by the main European retailers), consumption has “crossed over” to the wider indigenous population.

Health is a major growth factor in the EU food market, as fruit and vegetable consumption is promoted and consumers become more aware of the fat, sugar, and salt content of their diets. There are also increasing concerns among some consumers regarding the environmental (carbon, water) footprint of agricultural and horticultural production.

SUMMARY TABLE

Key Trends and Drivers of Market Change

- The EU market will increasingly source vegetables from third countries.
 - Continued immigration into the EU will facilitate the introduction of new vegetables into the EU market. Many of these will become mainstream products over time.
 - Continued changes in household composition and consumer behavior will lead to the introduction of new vegetable varieties and value-added vegetable products (snack and convenience foods).
 - Richer and more knowledgeable consumers will increasingly look at the health, environmental, and ethical aspects of vegetables (organic, fair trade), in addition to their quality aspects. This relates to new concepts such as decommodification and the carbon footprint of vegetables. Marketing margins on these products are high (20–40 percent above conventional), but are coming down as volumes increase.
 - Supermarket chains dominate food retailing in general, as well as the retailing of higher-margin products such as organic, fair-trade or value-added vegetables. Other marketing channels (farmer markets, home delivery schemes) are gaining some ground, but focus mostly on local produce items.
 - Consolidation among the specialized wholesalers who supply the leading supermarket chains will leave a decreasing number of larger firms in the business. Currently no more than 20 sizeable wholesaler-importers are estimated to exist in the EU.
 - Wholesale markets have been reduced to acting as suppliers of small HoReCa (hotel, restaurant, café) establishments. The large-scale foodservices industry follows, with some lag, the same trends as the supermarket sector.
 - Specialized wholesalers in the EU are increasingly shifting to North African suppliers such as Morocco and Egypt from which produce can be shipped in by boat (lower carbon footprint).
 - Specialized wholesalers are increasingly procuring directly from producers and investing directly in producing countries (in farms, cold chain facilities, and the like).
 - Compliance with international standards, such as those of GlobalGAP and BRC (the British Retail Consortium) as well as Hazard Analysis and Critical Control Point (HACCP) standards, is a basic requirement. Standards keep changing and expanding. Retailers have developed their own requirements beyond these industrywide standards. Lead exporting countries have set up national standards that are in line with broad sets of standards (KenyaGAP, ChileGAP).
 - GlobalGAP and fair trade organizations are actively looking into how to bring more smallholder growers into their schemes.
-

Strategic Options for Tanzania

- Add differentiation to vegetables (introduce brands, pioneer new varieties, develop Tanzanian promotion campaigns).
 - Explore the economic potential for organic and fair-trade vegetables with key stakeholders, such as the Fairtrade Foundation, and leading EU importers. Markets for fair-trade certified mangetouts are readily available.
 - Identify which USPs Tanzania can develop, on top of regular market requirements, in order to break into markets (price advantage, supply window, unique product).
 - Take a stepwise, multipronged approach. Start with few products and markets to build up volumes and then expand carefully to more rewarding markets. Good starters are fine beans for the Dutch market (and re-exports) and fair trade mangetouts for the U.K. market. Organic, value-added, and baby vegetables and markets such as Germany, the Middle East, or South Africa are secondary or tertiary targets.
 - Exploit the proximity of Kenya. Faced by a loss of preferential status under the EU Lomé trading agreement, Kenya may look to invest in neighboring countries. Actively attract investment.
 - Attract investment from or develop partnerships with firms (producers, importers) in the EU.
 - Streamline (and reduce the cost of) government export processes in order to attract investment.
 - Strengthen the Tanzania Horticultural Association (TAHA), through collaboration between flower and vegetable sectors. Start developing a TanzaniaGAP, and as volume increases, explore charter options for air cargo.
 - Explore public-private partnerships to address the many challenges simultaneously.
-

Another important trend is “decommoditization” (differentiation of goods from mainstream products). Examples include:

- the increased used of brands for fresh fruits and vegetables
- new products, such as Tenderstem broccoli (a novel high-value vegetable that could be produced in Tanzania)
- displaying individual supplying farmers in ads and in-store displays

Consumers are often willing to pay a significant premium to receive goods that are certified as organic, branded as “fair trade,” or fresh-processed and packaged for convenience—up to 35 percent in some cases.

Organic

The market for organic produce has also boomed in recent years: globally, it was estimated at US\$29 billion in 2005.¹ Consumer demand for organic fresh produce continues to strengthen, with revenues increasing by 26 percent between 2001 and 2004 in Europe. However, sales of organic fruit and vegetables in the EU are concentrated in a relatively small number of markets; Germany and the U.K. represent over half of all European revenues.

Supermarkets often dominate sales of organic fruit and vegetables, with a 48 percent share in Europe overall—an estimated 70 percent of the organic market in the U.K. However, the supermarkets' market share is under threat, as sales channels for organic foods broaden into farmers' markets and other market channels, such as home delivery, street stalls, and U-Pick farms. The share of these channels in the overall organic produce market is still small, but growing rapidly.

Organic production is a risky undertaking, especially in tropical regions where plant diseases are hard to control without chemicals. It also requires supply chains completely separated from conventionally raised products, including designated pack-houses, transport means, and so on. For this reason, successful organic export farmers in Kenya, for example, typically prefer to diversify their risk by devoting only part of their land to organic production, producing conventionally on the rest.

Although premiums on organic produce are still high (20–40 percent at cost, insurance, and freight [CIF] price level), prices and margins are coming down as supermarkets such as Asda (Wal-Mart) bring organic produce items into the mainstream.

Fair Trade

Although significantly smaller than the market for organic foods at US\$1.3 billion in 2005 (including all fair trade foods, not just produce), the global fair trade market is growing fast—40 percent per year in the U.K. in terms of value. Europe represents around 65 percent of the fair trade market. Within Europe, the U.K. is the largest fair trade market, closely followed by Switzerland, but fair trade products are increasing their market share throughout Europe.

Fair trade products have achieved an overall market share of some 4 percent in countries like the U.K. for such products as tea, coffee, and bananas. The Fairtrade Foundation in the U.K. has accredited suppliers of fair trade products in some 60 countries around the world. The concept is now being applied to other products, such as clothes, wine, and flowers, and a range of other fruits, such as mango, pineapple, and papayas.

Among horticultural products, fair trade certification has mostly focused on fruits. While fair trade standards exist for vegetables, the only certified supplies in the EU today are coming from Egypt (fine beans and sweet peppers).

Responding to consumer demand, supermarkets are keen to expand their line of fair trade produce items. Sainsbury's has shifted (almost) 100 percent to fair trade for bananas, and there is a ready market for fair trade-certified beans, a product that is hardly available at the moment. (This is a prime example of a novelty product that offers an interesting market opportunity for Tanzania). One

¹ U.K. Soil Association, *Organic Market Report 2006*.

importer, for example, indicated that he could easily sell 10–15 tons of fair trade-certified mangetout peas per week to his supermarket customers.

Current fair trade standards allow only cooperatives or equity share schemes to be certified, not individual farmers working, for example, as outgrowers (producers under contract with a lead farmer or exporter). This is certainly a problem for vegetables air-freighted out of East Africa, given that these are produced either at large commercial farms or through outgrower schemes. However, Fairtrade Labelling Organizations International (FLO) in Germany and the Fairtrade Foundation in the U.K. are looking into how they could adapt generic fair trade standards for produce to certify these two types of production organization (a pilot project is currently ongoing in Kenya). Given that Tanzania's horticultural sector is smaller and in an earlier development stage, it may actually be a far better location for experimenting with fair trade-certified outgrower schemes for vegetable production. Fair trade-certified vegetables appear to offer one of the most promising initial routes to market for Tanzanian producers.

High Care (Value-Added)

Producers of off-season vegetables in countries like Kenya are producing more and more “high care” products, such as prepackaged stir-fry mixes, already packaged and labeled ready for the retailers' shelves. This not only increases the free on board (FOB) export values and the producers' margins significantly, but also makes the supply chain more efficient and cost-effective. Apart from adding more value, one advantage of producing high-care fresh vegetable products is that it allows the producers to use lower quality grades of a product (although the quality expectations for prepacks have gone up over time).

This could eventually be a key market for Tanzanian exporters, but it requires a great deal of investment in infrastructure and very high standards for supply chain management, hygiene, and efficiency. Also, demand for convenience packs has not grown as fast as some had hoped: in Kenya, for example, there is overcapacity in high-care vegetable fresh-processing facilities. These products are technically challenging and the market for them is maturing, which means that margins are coming down. It was generally not seen as a good first step for Tanzania.

Carbon Footprints

The carbon footprint of produce items (assumed to be high for air-freighted legumes from East Africa) is the topic of energetic debate, especially in the U.K., often a barometer for what will happen in the rest of Europe some 3–5 years later. The 2007 Re:Fresh conference, a leading meeting of produce sector stakeholders in the U.K., was devoted to the topic. Partly driven by a desire to protect local foods (a factor in the emergence of “locavores,” persons who strongly prefer to eat locally grown food), the emphasis is now especially on the transport of produce items—the impact of “food miles” (moving food long distance by either road, air, or rail) on the environment. (All exotic fruits and vegetables as under review in this study will invariably be air-freighted). Local-sourcing initiatives could, in theory, dampen the prospects for East African vegetable exports to Europe in the future. In many ways, this whole trend reflects a backlash against the trends of supermarket domination and the internationalization of the agrifood supply chain.

However, the food miles debate is not really translating into consumer pressure at this point. For example, when Tesco put airplane logo stickers on air-freighted vegetables, a survey revealed that 60

percent of consumers actually thought the presence of the logo was a good sign, as it shows produce is flown in and is therefore apt to be fresher and of better quality.

The food miles debate is also still in an early, more emotional stage. Apart from the likely unwillingness of consumers to give up the convenience and health benefits of having produce year-round, there are two counterarguments. *First*, blocking produce from developing countries implies a politically undesirable hampering of the economic development of these countries. Kenya is already trying to shift the debate to “fair miles.” *Second*, from a rational point of view, we need to look at the complete carbon lifecycle footprint (and water footprint) of a product from production to final consumption. It may turn out to be more carbon-efficient to air-freight off-season produce from developing countries than to grow it in greenhouses in Europe.

However, the U.K.’s leading produce importers have started to shift their procurement to start addressing the food miles issue, and also to reduce a reliance on Kenya. (Bad weather in Kenya had importers scrambling for supplies from second-string sources in 2006.) They are now sourcing from countries in North Africa and the Near East (such as Egypt, Morocco, Algeria, Turkey) and even places from which sea and/or road transport makes business sense, including the Caribbean (Jamaica) and South America (Peru).

OVERALL EU MARKET CONDITIONS

From the point of view of the U.K. and the wider EU market, a project designed to export vegetables from Tanzania has the potential to capitalize on many of the trends discussed above. The real challenge, however, will be whether the strength of the existing competition (and the breadth and sheer strength of the Kenyan industry will always be major factor to consider for any vegetable export project from East Africa) can be overcome. Clearly, the market opportunities exist; the key question is whether Tanzania can establish itself as a credible supplier to the U.K. and other EU markets.

Tanzania is starting a long way back compared to most, if not all, other countries in Africa exporting to the EU, and competing head-to-head with countries such as Kenya will be especially hard work. Alternatively, Tanzania could try to benefit from its proximity to Kenya by attracting investment and especially technical and marketing management expertise from its neighbor. Tanzania’s good climate, undepleted soils, low labor costs, and emerging air cargo space, could, with the right investments, allow it to expand as an extension of the Kenya supply base. Tanzania is likely to find most success in taking a multipronged, stepwise approach and in targeting emerging niche markets that can be found across the EU. Fair trade legumes are a prime example here. Nevertheless, even these will be extremely challenging and take considerable investment, time, and effort.

TRADE STRUCTURE—RETAILERS AND IMPORTERS

The majority of fresh fruit and vegetable imports in Western Europe are made via specialized fresh fruit and vegetable wholesalers—importers who supply directly to the major retail chains. These specialized wholesalers have emerged in response to the demand created by the growing supermarket chains. To a great extent, these specialized wholesalers have taken over the import function. This means that traditional importers and the traditional wholesale market system of produce distribution has been by-passed, as supermarkets look to shorten supply chains and increase direct contact with growers and exporters (with the specialized wholesalers being used to actually handle the physical act of importing and distribution.)

This is particularly the case in the U.K., where the five major supermarket chains capture around 85 percent of the overall food retail market. The balance of retail market share is accounted for by smaller chains, independently owned retail outlets, and convenience stores. In Continental Europe, the picture is more fragmented, as there is a larger role for traditional markets in the supply of fresh vegetables, both at the wholesale and retail level. This is due in part to consumer preferences for more locally produced food in Continental Europe, but also to the higher level of liberalization, commercialization, and investment in the grocery retail industry in the U.K. For Tanzanian exporters, this means they will find highly concentrated food retail markets in most of the EU countries, but especially in the U.K.

As a result of the huge influence and commercial power of the major retailers in all major EU markets, there has been a massive tendency towards concentration and consolidation throughout the fresh produce supply chain, for both buyers and suppliers. Because of consolidation, large-scale buyers could (and did) create strategic partnerships with suppliers to ensure that high volumes of quality produce come from trusted suppliers with reliable regularity. Major European growers and exporters are often expanding operations. Through joint ventures or other partnership formats, they are looking to start up production in countries such as Kenya, Egypt, and Central America to ensure that they can supply their target market with sufficient volumes year round.

SPECIALIZATION AND RELATIONSHIPS

While there are literally hundreds of companies across the EU market that specialize in handling fresh fruits and vegetables, the ongoing consolidation of the retail market across the EU means that the number of specialist importers that handle exotic fruits and vegetables has contracted. Our research indicates that there are probably no more than 10–20 sizable companies across the EU that focus on the import and distribution of exotic vegetables.

In most cases, specialized wholesalers have long-standing relationships with key suppliers. They work with them directly or through agents. The tendency for large retail chains—especially those based in the U.K.—to want to trade in direct, straight lines with suppliers has reduced the traditional role for wholesale importers in more developed European markets.

Supermarkets are the masters of the value chain and put tremendous pressure on suppliers. For example, just to keep their suppliers on their toes, a supermarket chain may auction off a certain line (e.g., the French bean supplies for the upcoming year) and replace the incumbent, unless the incumbent is prepared to meet the offer made by the best bidder.

Throughout the supply chain, orders are often larger than actually required (some “surplus volume” is built in, maybe up to 25 percent) and noncompliance with (high) standards is used as a pretext for rejecting part of a delivery to match actual demand. Retailers may do this to their specialized wholesaler suppliers, specialized wholesalers to exporters, or exporters to producers. No seller can complain about such buyer behavior for fear of losing the business. This is not universal: the more established the relationship and the more trusted the counterpart, the more ethical the behavior of the agent will be.

While supermarkets dictate the products they want and where and when to deliver them, it’s their specialized wholesalers who develop the supply chains for these products. Hence, these lead

importers are the gatekeepers to the largest and most reliable produce markets in Europe, and should therefore be part of the business model of any Tanzanian producer.

Specialized wholesalers in the EU, as they are assessing potential countries to source from, will talk to officials of the government of the exporting country and evaluate the collaboration they anticipate from. Working closely with the authorities to maximize the efficiency of the export processes, will increasingly be a central issue. In one example provided by a key informant, a process was developed whereby a sample from a shipment is sent to the source country's health inspection services in advance of the container moving from the pack house, rather than the whole container being inspected at the airport. This considerably speeds up the export process and avoids allowing produce to heat up while standing at the airport waiting for inspection before being loaded on the plane. In the example above, the wait time before loading dropped from seven to two hours. This inspecting-by-advance-sample was accepted, because the government has inspected and approved the high-quality infrastructure and processes at the pack house.

CATEGORY MANAGEMENT: PART OF THE WAY FORWARD

As noted above, the role of the specialized wholesaler has changed significantly over the last 5–10 years. Functions carried out today involve coordination, quality control, logistical services, facilitating the movement of goods to buyers, and so on. For the leading companies in the U.K. and other EU fresh-produce businesses, this means that buyer/supplier relationships now look more like genuine partnerships, as “category management” (see Section 3.2.3) has become the preferred method of sourcing produce for major retailers.

As a result, a whole series of joint ventures and vertical and horizontal strategic alliances have emerged around the world. These alliances—allowing closer links between growers, packers, and importers than ever in the past—ensure consistency of supply and the ability to supply major customers on an AYR basis. In terms of *vertical strategic alliances*, most of the leading Kenyan exporters, for example, have a series of well-established relationships with EU-based importers. These range from vertical integration, involving joint ventures and co-investments (an example is Homegrown, Kenya's largest vegetable exporter), to trading partnerships that, although loosely based, are still very well established and may go back 20 years or more. *Horizontal strategic alliances* (involving, for example, northern and southern hemisphere producers) have emerged in the United States (for instance, Global Berry Farms), but are far rarer between European and African producers. For the European market, AYR requirements are mostly captured by the global procurement strategies of the specialized wholesalers supplying the supermarket chains.

Specialized wholesalers increasingly make direct investments in overseas farms or post-harvest facilities, such as cold-chain facilities at the airport. These are mostly equity stakes in export firms, but there are some wholly owned farms as well in countries such as Zambia, Gambia, Kenya, Jordan, Guatemala, Peru, and Egypt. The main objectives are to secure supplies and improve efficiency. Specialized wholesalers also provide technical advice on quality control aspects (e.g., maturity level or size), on packaging, and on cold chain technology, among others. Specialized wholesalers may, at times, also pre-finance producers to help with cash-flow issues. In order to overcome the farmer's risk averseness during the first season, they may go so far as to offer a price-payment guarantee to farmers, so that even if the crop fails, farmers will still get paid.

These direct investments are part of a key trend expected to become prominent over the next 2–5 years: the move towards shorter and more direct supply chains (more vertical integration; no exporters or importers involved anymore). To support this development, producers will increasingly need to organize themselves at the national level to be in a better position to negotiate with the airlines. Countries where such consolidated efforts take place will be more likely to be selected as sourcing countries by the specialized wholesalers that are the gatekeepers to the supermarket chains. Organizing producers at the national level may be easier in Tanzania than in a country like Kenya, where there are many more stakeholders and where existing structures are much more ingrained.

WHOLESALE AND FOODSERVICE

The wholesale distribution sector in Europe, in effect, no longer supplies to the major retail operators, due to the rationalization of the supermarket supply chain and the current trend to develop close technical and commercial relationships with suppliers. As a result, wholesale markets in Europe now tend to focus their business on smaller, niche, independent retail operations and the foodservice sector, particularly small and medium-sized “HoReCa” (hotel, restaurant, café) establishments. Given the level of forward planning carried out by most category managers in terms of supply and delivery, traditional wholesalers are only used by U.K. supermarkets to top up their orders. Fruit and vegetable businesses operating from the U.K.’s physical wholesale markets, as found at Covent Garden, Western International and Spitalfields, usually turn over less than US\$10–20 million per year.

Opportunities in the foodservice and wholesale industry are far smaller in the U.K. due to the high level of consolidation in the supply chain. In Germany and France, there is greater fragmentation in the fresh produce subsector, and wholesale markets are more important. These smaller agents—importers and wholesalers—may be more approachable, but this would be for significantly smaller volumes than supplying the large supermarket chains. With more short-term market-based trading in these markets, as opposed to long-term relationships, volumes and prices vary widely, thus greatly reducing the markets’ attractiveness.

In terms of revenue, the foodservice industry is growing faster than the retail sector in Europe. In the U.K., for example, foodservice sales are predicted to overtake retail sales by 2015 (although given the far higher margins at restaurants, the volume of food sold will remain much lower). As larger caterers and catering wholesale groups gain market share over smaller players, they are moving towards more efficient, centrally controlled systems of purchasing that will allow them to trade more directly with producers. Like retailers, foodservice wholesalers want reliability and conformity of produce, something that they can far more readily achieve with their greater buying power. The requirements for carrying out business in this sector are increasingly similar to those required to do business with major retailers, and in no way should Tanzanian growers and exporters be duped into believing that this is a “soft route” to market.

The main end market for the premium fresh sector would be the higher end of the foodservice industry (perhaps the top 25 percent of hotels and restaurants in terms of menu prices). For new varieties of baby vegetables, key contacts would be smaller, high-quality foodservice suppliers specializing in vegetables, as well as selected catering wholesalers/distributors. Volumes supplied to the foodservice sector are likely to be far lower than to the retail sector, but buyers are often more prepared to trial smaller volumes and more exotic products due to the innovative nature of high-quality restaurants and hotels and their chefs. As an example, the foodservice sector in the U.K.

accounts for around 35 percent of overall fruit and vegetable demand, compared to the 65 percent of trade that passes through the retail sector.

IMPLICATIONS OF RATIONALIZATION

Rationalization of the supply chain has led to consolidation throughout. This rationalization is driven mainly by the growth and consolidation of major supermarkets in Europe and their increased buying power and influence. At the grower level, smallholder production is increasingly losing out to larger commercial operations. Although many companies prefer to minimize risk by maintaining “outgrower” contracts, there are now fewer, but larger exporters that are investing more capital upstream to gain more control over the supply chain. These investments include direct ownership of the farms where the produce is grown.

In many cases, smallholders do play an important part in together supplying high volumes of produce, but with increasing pressure from new standards and efficiency demands, it is expensive and logistically demanding for exporters to provide the necessary training to large numbers of smallholder growers. These technical demands, often linked back to the need to ensure food safety and provide full traceability of fresh produce with respect to pesticide applications, for example, are likely to increase in importance in the future.

MARKET SIZE

The overall volume of vegetable imports into the EU reached over 10.5 million tons in 2005, an average annual increase of 4.9 percent since 2001.² The share of the market accounted for by exotic and baby vegetables is just a small part of this, but it shows strong growth relative to the fresh vegetables category as a whole.

The growth in imports of established off-season vegetables underlines the growth potential for more recently emerged niche markets, such as baby vegetables. Imports of peas and beans, for example, have grown 40 percent, going from 330,000 tons in 2001 to 470,000 tons in 2005. Non-EU countries make up around 15 percent of vegetable imports for the EU (85 percent is intra-EU trade).

Imports from developing countries dominate the extra-EU fresh vegetable imports and have increased over recent years throughout the main European markets. In 2005, the EU imported US\$1.3 billion worth of fresh vegetables (955,000 tons) from developing countries (11 percent of total imports, but 80 percent of extra-EU imports). This is an increase of 53 percent both in value and volume compared to 2001. The major products imported from developing countries are fresh beans, tomatoes, sweet peppers, and fresh peas. The shares of developing countries in total import value differ significantly across products. For tomatoes, for instance, this share is only 9 percent, while for beans it is 66 percent. Besides beans, developing countries have significant shares in total fresh vegetable imports for peas (61 percent), sweet corn (41 percent), asparagus (33 percent), garlic (23 percent), and artichokes (23 percent). The leading fresh vegetables exporter among the developing countries is Morocco, followed by Kenya, Turkey, Egypt, and Peru.

The leading importers of fresh vegetables are Germany, the U.K., France, and the Netherlands, together accounting for over 70 percent of EU imports by value. Germany, despite being the leader,

² EuroStat 2006 <http://tinyurl.com/23s9k8>

imports relatively little on a direct basis from Africa. This leaves France, the Netherlands, and the U.K. as the principal destinations for directly imported produce from Africa. Among African countries that supply fresh vegetables, Kenya is by far the biggest, followed by West African countries such as Mali and Burkina Faso. France imports 32 percent of the EU's total supply of vegetables from developing nations, while the U.K. imports 25 percent. The overall trend appears to be for imports from outside the EU, especially from Africa, to keep rising over the next 5–10 years.

The overall market in Europe for the high-value vegetables dealt with in this study is still relatively small. For example in the U.K., green and fine beans, sugar snap peas, and snow peas together come to around just 1.5 percent of the wider vegetable market. With the addition of baby corn, high-value brassicas such as baby cauliflower and baby broccoli, premium root vegetables such as baby carrots and baby turnips, and other specialty vegetables (for which data are not readily available), this figure is likely comes to around 2–2.5 percent of the total market share.

Nevertheless, for potential exporters in Tanzania the market is still considerable, as 2.5 percent of the U.K. vegetable market alone totals around 108,000 tons. To put this into context, total Tanzanian exports to the EU in the last two years were around 1,500 tons, while Kenya's total vegetable exports to the EU were around 63,000 tons.

Leading U.K. importers of these products estimate that the market for these specialty baby vegetable products is growing at around 4 percent year on year in the U.K. This is compared to under 1 percent annual growth for the overall vegetable market by volume, meaning that higher-value products are slowly growing their share of the overall shopping basket.

Although marketing margins are high, baby vegetables are already produced by Kenya, Zambia, and other countries and represent a limited and relatively static market. Leading importers are predicting that at this stage the additional demand for specialty baby vegetables will largely be met by existing suppliers. Some baby vegetables are also technically difficult to grow. Homegrown, the leading exporter of vegetables from East Africa, has more or less given up on producing baby vegetables, according to one key informant.

The market for prepacked vegetables is also growing rapidly in Europe. Around 70 percent of vegetables bought in the U.K. are now prepacked (the U.K. leads the rest of the EU in this regard). In the U.K., almost all of the target vegetables of this study are available prepacked, and due to the far higher labor costs in Europe, they are increasingly being packed in high-care facilities in the exporting country.

Lesser-Known Vegetables to Watch

- **Snow peas** are essentially the same as mangetout, which are widely eaten in Europe; consumers are much more likely to recognize mangetout. Nonetheless, although snow peas began as a small-volume specialty item at supermarkets and other retailers, they are increasingly becoming mainstream due to their AYR availability. They are particularly popular in the foodservice sector.
- **Pattypan squashes** are uncommon in Europe and are not widely recognized there. According to the U.K.'s *Fresh Produce Journal*, they are typically found in Indian outlets, although they are beginning to be seen elsewhere in the U.K. Pattypan are more likely to be a high-end product for premium restaurants and high-end supermarkets, rather than for the mass market. The total European market for pattypan would be very small compared to those for other products.

TARIFF BARRIERS

The EU has a complex import tariff regime that has traditionally aimed to protect the domestic EU production of fruits and vegetables during the European growing season. Tariffs are generally higher for vegetables, as the majority can be grown within the EU. The highest tariffs are generally applied to exports from developed countries such as New Zealand, Australia, Canada, the United States, and Japan.

Most developing country suppliers have been able to negotiate at least some degree of preferential access to the EU market. This allows them to export to the EU at rates of either very low or even zero duty (as opposed to regular 7 percent tariff) for a whole range of agricultural and food products, including off-season fruits and vegetables.

As a signatory to the EU–African, Caribbean, and Pacific (ACP) Free Trade Agreement, Tanzania enjoys duty-free access to the EU market, as do all of the other key suppliers from East and Southern Africa, such as Ethiopia, Zimbabwe, Uganda, Zambia, Uganda, and Kenya. However, most other countries that also supply exotic vegetables to the EU, such as those in Central America and Thailand, have preferential trade agreements with the EU as well, which let them enter the market at either zero or very low rates of duty. In this respect, Tanzania is at neither a disadvantage nor an advantage versus its competitors in other developing countries.

Interestingly, Kenya will lose its status as a Least Developed Country when the current Lomé Agreement comes to an end in December of 2007. This will force Kenya to negotiate a separate economic partnership agreement with the EU, likely less favorable than that for its neighbors and reducing its competitiveness. This may prompt new investments to shift from Kenya to Tanzania. Leading horticultural exporters in Kenya have already been hinting at this in the press, especially for the flower industry.

NONTARIFF BARRIERS

The situation regarding formal tariff barriers is reasonably straightforward and should not deter the development of Tanzanian exports of fruit and vegetables to the EU market. Of more concern would be the ability of Tanzanian growers and exporters to meet a plethora of other requirements that can be grouped under the heading “nontariff barriers.”

To ensure the quality of fresh produce on the European market, marketing standards provide specific legally binding requirements for certain fresh produce on the EU market and to exports. Where EU statutory standards do not exist, standards of the United Nations Economic Commission for Europe (UNECE) or Codex Alimentarius are initially consulted for internationally accepted product standards.

Of far greater importance are the specifications as set out and laid down by the commercial buyers at retail level (GlobalGAP and retailer specific standards). These standards normally take the EU and/or the UNECE standards as the starting point, but add a whole range of other quality specifications, both related to pre- and post-harvest handling, as well as other process and social requirements. These standards are normally developed jointly by the technical team of the retail chain and their nominated importers and distributors—and, in some cases, their own suppliers based in-country.

The ability to meet the minimum standards stipulated by groups such as GlobalGAP (formerly EurepGAP),³ the International Organization for Standardization (ISO), and the British Retail Consortium (BRC), as well as Hazard Analysis and Critical Control Point (HACCP) standards, is now required by the leading supply organizations worldwide, while individual retailers are imposing still higher standards (e.g., Tesco's *Nature's Choice*, Marks & Spencer's *Field to Fork*). Though less developed in this respect, the foodservice industry is beginning to move in the same direction.

As a result of the intense competition in the food and drink supply chain, especially at the retail level, some of these non-legislative (voluntary) requirements have de facto become mandatory for growers and exporters, if they are to stand any chance of winning or keeping contracts with European importers. Though most pronounced among the big retailers, this trend increasingly applies at lower levels as well.

GlobalGAP membership admits organizations and companies into a "club" of respected and proven operators in the supply chain. Many countries outside Europe, such as Kenya, Mexico, and China, have signed a memorandum of understanding (MOU) with the GlobalGAP organization in order to give their growers and exporters more credibility with leading produce importers and major EU retailers. The MOUs have led to the emergence of consolidated national GAP standards that are benchmarked on GlobalGAP and/or other GAP standards. These standards take country-specific considerations into account, such as the integration of smallholder producers. Examples here are KenyaGAP and ChileGAP.

Tanzania would benefit hugely from a close involvement and participation with the GlobalGAP organization. It is true that due to its expense and sophistication, some argue that GlobalGAP excludes smaller growers from supplying major exporters in African countries. However, the market for produce that is not certified by GlobalGAP (or an equivalent) is now quite small in Western Europe, as even wholesale markets require information on agricultural practice to satisfy their customers as to the quality and safety of produce.

How small the market for noncertified produce might be is open to some debate; estimates of around 10–20 percent of produce are often used. But whatever the actual figure is, it will only get smaller over the next few years. Tanzanian exporters should not be encouraged to believe that there is a potential market opportunity for uncertified produce in the EU.

To obtain GlobalGAP certification of large numbers of smallholder growers, they will need to organize in groups (of, say, 20 smallholders) which act as if they are one bigger farm. The current version of

GlobalGAP and Smallholder Farmer Certification

In May 2007, GlobalGAP (then still called EurepGAP) appointed Johannes Kern as an Observer for Africa. Working with the U.K. and German international development organizations, among others, Dr. Kern will "be involved in establishing new frameworks for best practice in smallholder certification, making the system more cost-effective by developing the group certification model as well as harmonizing the approaches in Africa with smallholder schemes operating in Latin America and Asia."

³ EurepGAP announced the change September 7, 2007, during its eighth annual conference in Thailand, "to reflect its expanding international role in establishing Good Agricultural Practices mutually agreed between multiple retailers and their suppliers" (GlobalGAP press release).

GlobalGAP makes some provisions for this. The group certification model implies group representatives guaranteeing the compliance of the group members. The mechanism is self-governing in that all group members will suffer if one of them fails to comply. Compliance is further supported through a traceability system, which makes it easy to identify the culprits in the case of defective produce, and sample-based auditing by third-party organizations. Since EU importers are usually the most sensitive to food safety problems (due diligence rules), they will further reduce their risks by 1) doing some of their own testing (in addition to public sector and GlobalGAP testing), 2) providing technical advice to farms, and, linked to this, 3) taking out high-risk elements by, for example, applying the agrochemicals themselves.

LOGISTICS AND TRACEABILITY

It is critical that imported produce reach the market in the EU via the fastest, most economical transport method to allow the produce to arrive in the destination country in the best possible condition. The main points of entry into the EU market for air-freighted produce are at London Heathrow, Amsterdam Schiphol in the Netherlands, and Frankfurt International in Germany. Paris, France, also features as a “gateway to Europe,” but to a lesser extent. All these airports have state-of-the-art produce handling facilities and are well serviced by the leading international airlines connecting East Africa and the EU market, especially those that operate out of Nairobi.

Logistics and direct air freight links are likely to be one of the bigger challenges for building up the industry for Tanzanian vegetable exports. Although increasing recently with growing tourism, the historic lack of air cargo space has been one of the main reasons that Tanzanian growers have failed in international markets in the past. Major importers in Europe will require at least three, but ideally five, deliveries of fresh produce per week, and with relatively few flights leaving Tanzanian airports for Europe, this is impossible to achieve with any degree of reliability.

Transshipment (via Kenyan flight routes) is possible but adds to the cost, is less secure (since Kenyan produce will come first), and adds complexity to the distribution process. Some Tanzanian exporters to date have managed to develop the Kenya route as a means of entering the U.K. market, but this has been the exception rather than the rule.

Air freight is the key cost element in vegetables from East Africa, making up around 50 percent of the EU CIF (cost, insurance, freight) price. It is not surprising, therefore, that key informants had many things to say about it:

- With three options to choose from (Jomo Kenyatta International Airport, Kilimanjaro Airport, and Dar es Salaam Airport), Tanzania is in a better position than some other African producers (e.g., Zambia, Zimbabwe).
- For air cargo, having both light and heavy products is important to balance the airplane. There thus appears to be a strong incentive for the flower and vegetable industries in Tanzania to collaborate on developing air cargo routes and negotiate prices with the airlines.
- At some point in their growth, Tanzanian producers will have to move away from a reliance on cargo space on passenger flights and take the big leap to chartered flights. Regular scheduled charter cargo planes to the EU would require volumes of 30–40 tons, three to five times per week. And while in 2005 Tanzania managed to export on average 40 tons per week to the EU, in 2006

exported volumes dropped back to less than 20 tons per week on average, and they are expected to be even lower in 2007.

- Revised packaging and stacking techniques could slash transport costs (lowering the per kg carbon footprint as well) by reducing waste and filling container space more fully. Experiments on this are taking place continuously, and Tanzania should get at the forefront of these developments.

Sea freight is technically an option for vegetables from Tanzania. It is significantly cheaper (maybe 50 percent). For some countries, the quality of produce can be better preserved using sea freight than air freight, because the cold chain can be more consistently maintained. Air freight from East Africa usually implies several hours on the (hot) tarmac before the produce is loaded on the plane. However, the goods would take about 21–28 days to reach Europe from Tanzania—a long time compared with the 7–9 day boat trip from Egypt, for example, to the U.K. The lag time between order and delivery from Tanzania is too long and too variable for an efficient management of volumes by the EU importers. Hence, sea transportation of fresh vegetables from East Africa remains a little-explored option.

Recent concerns over consumer safety have underscored the importance of tracking produce imported into the EU. Retailers must be able to trace goods back to their producer in case of product recalls or liability cases. Traceability systems that can identify products' origin and their path along the supply chain help to reassure consumers, importers, retailers, and governments alike. With increasing pressure from the transparency requirements, Tanzanian growers and exporters interested in the EU market need to make sure they are taking issues of labeling and traceability seriously and that they are communicating information clearly and regularly to key market contacts.

KENYA SETS THE BENCHMARK

Kenya is by far the biggest supplier from Africa, having built up a significant business in the leading EU markets over a 30-year period. The U.K. has been the main target for the Kenyan export business. This was based initially on historical links between the two countries, but this basis has since been superseded by the fact that Kenyan growers, packers, and exporters have shown themselves to be consistently “best of class.”

Kenya has been able to meet the stringent commercial and technical demands of the leading U.K. supermarkets—in a way that many others from East and Southern Africa have not been able to do. This would include Tanzania, which has had very much a “start-stop” relationship with the U.K. market and never really broken into the market over the last 15 years, as might have been expected. Overall, it still remains as a small fringe player to the EU market (see Section 3.9.1 for more details).

In comparison, Kenyan growers are well organized and efficient, and well-managed exporters are clustered around the main point of exit at Nairobi's International Airport. State-of-the-art cold storage facilities exist at the airport. While there are some concerns over the cost of air freight and the availability of air cargo space, the infrastructure at Nairobi far exceeds anything to be found at any of the other East African exporting countries.

While Kenya exports produce to the Middle East and other African countries on a small scale, 95 percent of Kenyan exports go to the EU, according to the Kenyan Horticultural Crop Development Authority (HCDA). The U.K., France and the Netherlands are by far the main target markets,

accounting for about 90 percent of EU imports of Kenyan produce. Exports to other African markets and the Middle East are a sideline business for the Kenyan horticultural sector—the focus is on building and maintaining the EU markets, which they have now dominated for the last 30 years (see Section 3.7.3).

The Kenyan fresh vegetable export industry is supported by a wide range of both public and private sector organizations, including the HCDA, the Fresh Produce Exporters Association of Kenya (FPEAK), various government agencies, and international donors—all focused on the development of export business to the EU. However, the real key to the success of the Kenyan industry is the involvement of a highly driven and professional private sector, based both on local capital and foreign direct investment (FDI) from Israel, the Netherlands, and elsewhere, and represented by their trade organization, FPEAK (see Section 3.7.4 for more details on this).

Kenyan exports of horticultural products now amount to some 163,000 tons per annum and include a wide range of fruits and vegetables, as well as a huge business in cut flowers. Many of the leading Kenyan export companies have developed excellent relationships with the major importers in the EU. In some cases, they have developed formal joint ventures and attracted investment from abroad into their businesses. They invariably have a high level of pre- and post-harvest export skills, as well as a detailed knowledge of customer requirements in the main EU markets.

Kenyan fresh vegetable exports have been growing steadily over the past five years to around 63,000 tons per annum. Green beans, mangetout, sugar snaps, baby corn, and packs of mixed vegetables are taking an increasing share of total exports year on year. These off-season products are outperforming the overall export sector. Green beans now make up around 60 percent of all Kenyan fresh vegetable exports.

Kenya has seen the development of well-organized and entrepreneurial businesses that are willing to make the sort of investments required to build and then sustain an export business. This has been possible for a number of reasons, not least the relative macroeconomic and political stability enjoyed in Kenya—especially during the 1970s and 1980s, when the development of off-season exports really began to take off as a business in Kenya. This gave local Kenyan entrepreneurs enough confidence to invest in their businesses on a long-term basis. The sector's development in Kenya probably owes more to the absence of any government involvement than its presence.

Kenyan exports in fresh vegetables have increased at a compounded annual growth rate of 5.87 percent from 2000 to 2005. In 2006, statistics will probably show a decline in total vegetable exports from the very high levels of 2005 (based on HCDA data from January–July 2006). However, by breaking the data down into product sets (see Section 3.7.6), it is evident that exports of baby vegetables, sugar snap peas, snow peas, green beans, and mixed vegetables (including products like stir-fry vegetable packs) will continue on a path of strong growth. This confirms that they are areas with significant potential and are gaining a greater share of the Kenyan export market as exporters move to higher-value and value-added products.

TANZANIA: 30 YEARS BEHIND THE “BEST IN CLASS”?

Attempts to get the horticultural export industry off the ground in Tanzania have over a long period of time been relatively slow and sporadic. There are, however, some success stories, the growing market for green beans being perhaps the most obvious and recent. The export volume for these beans by

companies like Gomba Estates and Serengeti Fresh incorporated output from a number of smallholder farmers; volume grew quite significantly until 2005, dropping in 2006.

Tanzania exports to a wide variety of EU and non-EU countries, covering all continents. Most of its fresh vegetables, however, go to the EU, and the majority of those to the U.K.—indeed, only the U.K. and the Netherlands are significant, regular markets for Tanzania’s vegetables. Also according to EU trade data, only peas and beans are exported in any significant volumes to Germany, U.K., Netherlands, and France, with a small but developing market for sweet corn since 2002.

Export data from the Tanzania Revenue Authority for selected high-value export vegetables show that, while fluctuating at around 3,000 tons per year, overall export volumes have generally trended down over the period 2003–2006, especially for key destination markets U.K. and the Netherlands. The 2006 data appear to indicate that volumes are increasingly exported via Kenya rather than directly to the EU.

The following are identified by EU vegetable importers as being the major weaknesses in the Tanzanian supply chain:

- *A lack of modern handling facilities*—including high-quality packaging and refrigeration amenities. Kenya for a long time had relatively modest handling facilities at the airport in Nairobi, but this shortcoming was offset by an abundance of air-freight connections. Now it has a state-of-the-art facility as well as numerous air-freight links—the best of both worlds. Tanzania by comparison is in poor shape on both accounts.
- *Few direct flights* from Tanzania to Europe—which implies high costs of overseas transportation.
- *Lengthy, bureaucratic customs procedures* at the point of exit—which contrasts with the situation in Kenya, where the government has introduced quick and easy mechanisms that do not discourage or penalize the exporter; leading importers are currently actively seeking out high-potential suppliers in countries where they can work with the government to streamline export procedures.
- *Weak links with buyers* in key international markets.
- *A long-standing failure of produce from Tanzania to meet international market requirements* in general and to comply with many specific standards in particular.
- *A lack of large-scale professional exporters to drive the sector forward*, leaving thousands of small producers to be integrated into a modern supply chain.
- *A lack of management skill at various levels*—compounded by the lack of well-managed and well-organized systems of procurement.
- *A lack of highly professional export and packing operations* capable of meeting international market standards.

This means that despite the production potential that exists in Tanzania, very little investment has taken place on the scale required to enter the U.K. or other EU markets. Notwithstanding its modest exports to the U.K. over the last 15 years, Tanzania is still largely unknown in the EU fresh produce sector—no major negatives exist, no major positives do either.

Compared with the more established growers and exporters in East Africa, Tanzania is almost a full generation behind the “best in class” in terms of developing its horticultural export sector. Tanzania’s horticultural sector will have to develop now when margins are mere cents per kg, whereas when Kenya developed its produce sector margins were up to US\$1 per kg. Working capital management and building volume have become much more critical.

Specializing in the supply of baby vegetables may offer (limited) opportunities in the EU market. Not only do these products retail for a far higher value in the more developed European countries, they also offer significant opportunities for adding value through pre-preparing, bundling (having more than one variety in one packet) and packaging. Assuming that Tanzanian farmers could achieve the relevant levels of sophistication, this should return more revenue to growers and exporters and may therefore require less volume as the market and infrastructure in Tanzania develop. But as stated earlier, Tanzanian exporters should not be led into believing they can do this without high levels of investment and commitment, as well as a degree of commercial and technical sophistication yet to be seen in Tanzania at any scale.

In terms of other market opportunities to add value and differentiate, Tanzania should be looking at the following:

- Retail-ready packaging/labeling/bar coding;
- Pre-preparation: trimming, slicing etc;
- Organic production; and
- Fair trade accreditation.

For Tanzania to develop a successful horticultural export sector, the following needs to be put in place over time:

Key Success Factors	Priority	Methods
Entrepreneurship and capitalization. Strong technical and commercial management skills—able to meet the demands of leading EU retail operations, able to manage working capital, cash flows. Sufficient access to capital.	Most essential (starting point)	Create conditions to attract investment. Training, research and development (R&D), investment in EU standards systems, working capital management. Develop data collection and analysis capability. Attract a financial partner for working capital management who understands the business.
Links with key EU importers.	Essential	Market research, visits, promotional activity, stakeholder workshop in Tanzania. Ensure sufficient knowledge transfer as to EU requirements and set up effective dialogue with importers.
Well developed physical infrastructure and excellent air freight links to key EU target markets.	Essential	Attract investment, use best practice models, set up strategic international and inter-modal partnerships.
Compliance with systems of production and management control such as GlobalGAP, BRC, ISO, and HACCP.	Essential	Work with EU organizations, learn from best practice examples. Seek EU technical advice, e.g., from importers.
Dedicated farming operations specific to EU retail requirements in terms of product quality, timing of delivery, and the ability to meet set	Essential	Research specific client requirements and realistic supply lead times. Work through scenarios for costings as well as fluctuations in

price parameters.		supply. Farm management training.
Effective use of cold chain facilities once produce has been picked and packed throughout the rest of the supply chain.	Essential	Research best practice (Kenyan) examples. Seek investment and strategic partnerships.
Support from trade sector and government agency organizations involved in export promotion and agricultural extension services, R&D, and education—all focused specifically on the development of export horticulture.	Important	Promotional activity, lobbying, awareness raising, and capacity building with key contacts.
Ongoing commitment to reducing supply chain costs, as well as adhering and adjusting to ever-changing good agricultural practices.	Important	Monitor costs internally, as well as globally sensitive costs like fuel and pesticides. Plan for cost reduction.
Promotional support at key times of the year.	Important	Plan trips with key international contacts, maintain active communication and open dialogue to establish key times of year.
A willingness to work proactively with suppliers in other parts of the world in order to increase continuity of supply, share key aspects of R&D and good agricultural practice, and reduce supply chain costs.	Desirable	Develop contacts through international marketing activities including trade shows, country visits, conferences, research.
A willingness to initially focus on a small number of retail customers, maybe no more than three, rather than looking to supply a wide spectrum of customers in wholesale and/or foodservice.	Desirable	Build up slowly from initial contacts. Focus on quality, best practice, and consistency as well as keeping an eye on competitiveness of prices.
Increasingly, the ability to develop category plans to build business on behalf of major retail customers over the next three years.	Desirable	Commit to business plan and product portfolio without over-stretching and diversifying too much.
New product development and a culture of ongoing business and technical improvement across the business.	Desirable	Ongoing communication and research to keep on top of market and consumer trends.

KEY ROUTES TO MARKET

The largest market for the products that Tanzania is interested in potentially exporting to Europe will undoubtedly be through major supermarket groups. For example, around 80 percent of vegetable imports in the U.K. go direct into the supermarkets. There are also some smaller markets, but there is no significant “middle market.” Between 70 and 85 percent of the lead importers’ business (mirroring the overall industry) is supermarkets, while 15–30 percent goes to greengrocers and wholesale/foodservices.

The wholesale sector, which gives access to the foodservice industry and small and niche retailers does provide some opportunity, especially in Continental Europe as opposed to the U.K., but standards for fresh produce are likely to be comparably high. Supply chains to these markets are also more fragmented, so quality, reliability, and value is sometimes lost as produce is distributed through the supply chain. There is currently a small market for non-Grade I produce, but this market will shrink further as consolidation continues in the European food industry.

It is recommended that Tanzania follow a stepwise, multipronged strategy (multiple markets, multiple products). It could start with a limited product range focused on mainstream products for mainstream markets (for example, mangetout for the Netherlands) to build up volume (for economies of scale in transportation and to meet market demands). Then it could expand to more challenging but higher-margin products (like baby vegetables, fair trade, organic, processed, and so on) to reduce both market and production risks.

THE U.K. MARKET

The U.K. should be a key target market for Tanzanian exports of high-value vegetables. The historical links in terms of trade and culture are relatively strong and the market for fresh, exotic vegetables is significant and growing. Also, Tanzania's main rivals—Zambia, Zimbabwe, and Kenya—have all had their biggest success with high-value vegetables in the U.K. market. Tanzanian exports to the EU to date have tended to focus on the U.K. market only. There is an opportunity to build on some of this (limited) success.

The U.K. market has other attractions as well:

- The market is concentrated at the retail point of sale, and once established, most suppliers are able to build meaningful business with the leading retailers.
- The foodservice market is still growing and consolidating.
- U.K. quality standards are high—but meeting them can be used to leverage into other markets.
- Demand for exotic fruits and vegetables as well as organic, fair trade, value-added, and baby vegetables is predicted to keep on growing.
- The physical distribution network is well developed—a number of airports are equipped to handle fresh produce imports, especially at London's Heathrow and Gatwick facilities.
- The U.K. has a reputation of importing from all around the world. Over a period of time a number of countries have started from a small base but have gone on to build a significant business on the back of the U.K. market. The classic case, of course, is Kenya, but others include Chile, Turkey, Peru, and to a certain extent Zambia.
- The U.K. has less interest in protecting its local vegetable sector from external competition than tends to be the case in France and Germany.

It is true that it is harder to get a foothold in the U.K. than on the the Continental EU market where, if a producer is GlobalGAP certified and price competitive, he/she can become a player in the market. Moreover, although prices in the U.K. are the highest in Europe, the standards are so high and rejections so common that this price advantage is nearly neutralized. The main attractions of U.K. supermarkets are the regular demand and the stable prices, by contrast with the easier-to-penetrate but more ad hoc EU market, where prices are more apt to crash. However, even in the U.K. market, nothing can be taken for granted. For example, Bomfords, one of the largest fresh produce suppliers in the U.K., went into receivership in June 2007 (although it will likely be bought out and remain operational).

To break into the U.K. market, Tanzanian producers will have to bring a unique selling proposition (USP) to one or more of the five leading produce importers-distributors (specialized wholesalers). These importers are the gatekeepers to the supermarkets and also play an important role in the produce supply chains for the wholesale trade and the foodservices sector. They have already carefully and over years built up a reliable African supply base. These are long-term, trust-based partnerships. For the importers to switch to (or add) another supplier, there has to be a good reason.

The three main reasons (USP types) for importers to take on a new supplier are: 1) a price advantage (5 percent lower or, for example, 10 cents/kg [GBP] less); 2) contributing to the AYR requirement of the supermarkets (i.e., address a current gap in the supply calendar); or 3) bringing a unique product

(e.g., a new item or a new value-added format, such as fair trade-certified vegetables, or Tenderstem broccoli). Overall, these importers respond to maybe 1 out of 20 samples offered, and they will actually work with only 1 in 50 enquiring suppliers.

On the other hand, if a supplier has such a USP, the importers are usually willing to work with the supplier to address other concerns, such as financing working capital or getting GlobalGAP certified (as long as they can be resolved within a year or so). While all of the lead importers we interviewed indicated that GlobalGAP certification is a basic requirement, none considered its absence a major hurdle as long as there is committed management in place and the producer has a USP.

When asked about the most important criteria when assessing potential produce suppliers, apart from having a USP, U.K. importers indicated supply capacity as the main criterion. This refers to the supplier's ability to deliver the right quality, at the right time and in the right volume (according to an agreed-upon supply calendar). Most suppliers that fail, do so on the basis of giving false promises: they claim they can deliver what or when they cannot.

Second-tier criteria include reliable technical information (traceability, shipment information, etc.), supply chain structures/ freight links, accreditation/GlobalGAP, and having a good pricing structure. Also mentioned as important were packing facilities; a solid, long-term business plan; good, proactive management; having the right produce (for which demand is readily available); good communication; and the fundamentals, including cheap land, cheap labor, good access to capital, good climate, good water supply and irrigation.

One U.K. opportunity of particular note here is Whole Foods. This U.S. food retail chain opened its first store in Kensington, London, in 2007. Incumbent retailer chains will likely not allow their fresh fruit and vegetable suppliers to also supply Whole Foods, which may offer an opportunity for new specialized wholesalers and new exporters in developing countries.

OTHER EU MARKETS

FRANCE

The most viable channel for French imports of fresh vegetables from Tanzania, as in the U.K., will be supermarkets and hypermarkets (but not hard-discount supermarkets). They require relatively large volumes and are not as tied to seasonality of vegetables, as they aim to serve the consumer with produce on an AYR basis. Rungis in Paris, the largest fresh food wholesale market in the world, is still a major source for fresh fruits and vegetables for France's supermarket chains. Smaller retailers and the more traditional street markets in France are more concerned with domestic production and supporting the domestic agrifood sector, so will almost certainly be less receptive to Tanzanian produce.

THE NETHERLANDS

As in the U.K., there are five big specialized wholesalers who represent 100 percent of supermarket supplies. Supermarkets represent 70 percent of these wholesalers' sales. The other 30 percent is regionally exported to Belgium, Scandinavia, Germany, and others countries in Europe. These five leading firms get around 70 percent from farms directly (domestic and imported) and 30 percent from smaller Dutch wholesalers, who rely 100 percent on imported produce. However, most of these

wholesalers do not import directly, but rather get their produce through small importers or import agents who get the produce directly from farms or from exporters.

Tanzanian vegetable exporters have found some success in the Netherlands. However, this has probably as much to do with the availability of air freight connections to the Netherlands from Tanzania and the role of the Netherlands as a key re-export center, as with a specific targeting of the Dutch market per se.

The Netherlands is also the largest single export market for Kenyan horticultural products (boosted hugely by major cut flower imports); it absorbs 42 percent of Kenyan exports to the EU overall. As already indicated, much of this is then re-exported. Since the early 1990s, as in most major EU markets, supermarkets have gained significant market share in the Netherlands, with major retailers' share coming to some 78 percent. It is not, however, quite as consolidated as in the U.K.

The Netherlands is also following the U.K. trend to more pre-prepared and -packaged vegetables to meet the market and consumer requirements for added convenience, one of the major drivers of growth in high-value and baby vegetable consumption. Nevertheless, the fact that there is more loose bulk sale in the Netherlands makes it a prime target (having a slightly lower threshold entry point) for vegetable exporters from Tanzania at the initial stages.

Establishing and maintaining contacts and relationships with Netherlands-based importers, wholesalers, and retailers will be important for any Tanzanian export effort. As the market for high-value exotic and baby vegetables develops all across Europe, many other EU markets will look to use the Netherlands as a source of supply to the growing market for these products—this in turn will benefit their established suppliers.

There are four main reasons why Tanzania should start with the Dutch market: 1) air-freight connections already exist (via daily flights from Kilimanjaro Airport to Schiphol) and offer a useful link with the flower industry (which needs the heavier legumes to balance out the planes and is further developed in Tanzania than the vegetable subsector); 2) the Dutch market is easier to penetrate than the U.K. market; 3) this market is the main throughput market for Germany, Scandinavia, and several other European markets; and 4) this market offers a basis for building volume and establishing Tanzania as a reliable supplier, which would provide the foundation on which to build exports to more demanding (and rewarding) markets such as the U.K. and secondary markets such as Dubai or South Africa.

GERMANY

Hard-discount supermarket chains have boomed in Germany, indicating that pricing is a key factor as consumers become more price conscious. Also as in many other European markets, significant consolidation has left a handful of major retailers with a large share of the market. Given the concentration of the discount retail sector in Germany, it is unlikely that demand for high-value, exotic, and baby vegetables will be as high as the U.K. It is true that there is a strong market for baby corn, which is often added to salads in Germany, but almost all of that is imported from Thailand. Because Germany imports relatively little produce from outside of Europe directly, it seems a doubtful export destination for Tanzanian exporters at this point.

OTHER INTERNATIONAL MARKETS

Given historical trade relationships and current import requirements, Europe provides the vast majority of opportunities for Tanzanian vegetable exports. While it is worth noting that there are other potential export markets to be explored (such as the Middle East and African markets), the level of demand from these markets is often quite limited.

Kenyan export data are certainly indicative. Only 1 percent of their horticultural exports are to other African countries, with c. 65 percent of this being exported to South Africa. Kenyan exports to the South African market are modest—no more than just over 1,000 tons per annum—and cover the full range of Kenyan exports, so it is likely that the share of the specialty and baby vegetable sector is minimal. In addition, 3.2 percent of Kenyan exports go to “Asia,” with around 65 percent of these exports split between Dubai and the rest of the UAE. Only 0.3 percent goes to North America. Further, Kenyan exports to the Middle East are no more than 3,000 tons per annum. Again, since this covers all Kenyan horticultural exports, the share of baby vegetables and other specialty produce in this figure is probably strictly limited.

MIDDLE EAST

In the Middle East, vegetable produce tends to be sourced from nearby countries such as Jordan and, to a lesser extent, Turkey. Volumes currently coming from East Africa are not very large. Kenya is the established and preferred source of supply for a wide range of fruits and vegetables, but there is also trade for selected items from Egypt. Egypt will have significant advantages due to its highly developed export industry for products like green beans, its Arabic culture, and its being the geographic link between Africa and the Middle East. India and Pakistan are both established suppliers to the Middle East markets for horticultural products such as mangoes.

In the last 10 years, hypermarkets and shopping malls have taken off in the Middle East, with Carrefour, Géant, and Tesco operating across the region. Locally, the UAE-based EMKE Group now operates 18 hypermarkets across the region. The six countries of the Gulf Co-Operation Council (GCC), comprising Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, and the UAE, provide the biggest growth opportunities in the retail sector, as they are the most affluent and have had significant increases in population over recent years.

As in other countries, the major end markets would be supermarkets. Based on potential overall volumes, though, it is difficult to see the Middle East as an obvious market for Tanzanian vegetables, despite its geographical nearness (see Section 5.2).

SOUTH AFRICA

In South Africa, around 55 percent of the formal food retail market is accounted for by the supermarket sector. The development of the supermarket business in countries such as South Africa does increase the quality of fresh foods, as they normally have higher standards. This typically provides business and marketing opportunities for those larger-scale growers (including those with contract grower schemes) who are able to adapt and supply the supermarkets—as has been the case in most other countries around the world (not least in the EU).

Since the end of apartheid in 1994, South African supermarket chains have also expanded throughout Africa. The Shoprite group of companies, Africa’s largest food retailer, operates 846 corporate outlets in 17 countries (including Tanzania). Other food retail chains from South Africa (SPAR, Woolworths,

Pick 'n Pay) and Kenya (Nakumatt, Uchumi) are poised to expand their branches throughout Africa. As they grow, these chains will develop continental procurement systems, which will increasingly imply trade of food products from the best source country to all the countries where the chains operate outlets. In turn, this implies both increased competition and increased opportunities for vegetable producers in Tanzania.

As a result, as with the Middle East markets, the South African market in reality represents useful incremental business to the Kenyans and not a major opportunity in its own right—and should almost certainly be viewed by Tanzanians in the same light. Europe should remain the key target market, despite its numerous challenges.

RECOMMENDED NEXT STEPS

In collaboration with the Tanzania Horticultural Association (TAHA) and the relevant government ministries (agriculture, trade and industry), organize a stakeholder workshop in Tanzania to:

- Present the findings of the two complementary USAID-funded studies on the Tanzanian export vegetables sector.
- Set these findings in the broader context of previous analytical work and dialogue on this topic (e.g., the work done by Wageningen University and the stakeholder consultation meetings organized by the Dutch government in Arusha in October 2005 and January 2006).
- Bring Tanzanian stakeholders into a direct dialogue with representatives from target markets (several key informants for this study expressed a strong interest in sharing their expertise on such topics as market requirements, logistics efficiency, and fair trade standards in a workshop setting).
- With the combined findings and broad expertise at hand, use strategic management tools (SWOT analysis, value-chain analysis, scenario analysis, and so on) to develop a strategy concept paper for the sector.

3. THE EU MARKET FOR FRESH VEGETABLES

3.1 KEY MARKET TRENDS AND DEVELOPMENTS

3.1.1 PRODUCTION

Most EU countries have a well-developed domestic vegetable production industry. For example, Spain,⁴ which is a significant producer and the EU's largest exporter, grows a range of crops that typically includes, on an annual basis:

- Tomatoes—3.6 million tons
- Potatoes—3.0 million tons
- Onions—1.1 million tons
- Capsicums—975,000 tons
- Lettuce—914,000 tons
- Beans—310,000 tons
- Cauliflower—295,000 tons
- Artichokes—265,000 tons

In the North of Europe, such as in the U.K., the Netherlands, Germany, and the Scandinavian countries, where there is a less favorable growing climate, production is lower, but is often boosted by the use of greenhouses. These North European countries have also become more dependent on imports from Southern European producers, such as those based in Spain, Portugal, Greece, and Italy in particular, especially for the more exotic products that have become popular among European consumers over the past 20 years.

However, most of the EU vegetable production base relies on relatively high-cost structures, compared to other parts of the world. In the future, it is likely that more vegetables will be sourced from either Eastern Europe and/or from other so-called third countries of supply, such as Central America, North Africa, and East and West Africa—all of which have much lower production cost structures. Many companies work with selected partner organizations in warmer countries, which ensures consistency of supply and good-quality produce at good prices. As an example, Marshall's, a U.K. supplier of high-value and prepared vegetables to supermarkets such as Sainsbury's, Marks & Spencer, and Waitrose, has partners in Spain and Morocco for baby and exotic vegetables. In the past two years, uncharacteristic weather conditions have threatened domestic harvests of both fruit and vegetables in various areas of Europe, such as Spain and Portugal, which could encourage more extra-European imports in the future.

⁴ Data provided by the Spanish embassy.

3.1.2 IMPORTS

Although far smaller than the volume of fruit imports, imports of fresh vegetables have increased over recent years throughout the main European markets. The main suppliers are Spain and the Netherlands, both of which have strong vegetable-producing and -marketing sectors and who between them furnish around 60 percent of the total European supplies of fresh vegetables by volume. The main exports from these countries are normally temperate produce such as tomatoes, capsicum, lettuce, and onions, although Spain has some modest exports of more exotic products, like mangoes and avocados.

Unlike extra-regional EU fruit imports, which are largely controlled by Latin American countries such as Brazil, Argentina, and Chile, Africa supplies a relatively high percentage of fresh vegetables that are imported from outside the EU. Major importers from Africa are France, the U.K., and the Netherlands. As noted in the introduction, Kenya is a particularly important African player in the supply of a wide range of vegetables to the EU—in particular, peas and green beans.

There is a strong tendency to source fresh vegetables from domestically based EU suppliers when produce is in season and then import them from outside the EU at other times of the year to ensure all-year-round (AYR) supply. The key months for off-season supply of fresh vegetables to Europe are usually between November to March, depending on the importing country, its climate, and growing and consumption traditions. However, many countries will rely on imports for some produce on an AYR basis, especially for more exotic, tropical products that do not grow well in Europe, such as baby corn.

Consumption of exotic fruit like mangoes, passion fruit, and avocados has boomed in Europe since the 1970s. This was initially partly due to demand from growing immigrant populations in Europe from the Caribbean, Africa, and Asia. Over time, however, due to highly effective marketing by the main European retailers of these products, consumption of these products has “crossed over” to the wider indigenous population. For the major EU retailers, the attractions in stocking and selling exotic fruit to the mainstream market were a combination of the following:

- The opportunity to grow overall demand for fruit in a relatively stable market with new and appealing products to EU consumers, albeit from a small base.
- The ability to fill a growing demand from consumers for new products, healthy products, and products with degree of “excitement” about them.
- The opportunity to earn higher-than-average margins from niche, specialty products.
- The fact that the supply base was relatively disorganized, which meant that supermarkets could require suppliers to meet high standards of both technical and commercial performance to achieve the “right to supply.”

If exotic fruit has led the way in the development of this market in the EU, exotic and baby vegetable varieties are now clearly following the same basic trends. It can be expected that the overall demand will continue growing as these produce items become more mainstream in the European vegetable market and demand for off-season vegetables increases.

3.1.3 EXPORTS

Exports of fresh vegetables from EU countries are similar in value to imports, both accounting for around US\$10.9 billion; both figures have increased in recent years. This reflects the fact that the majority of fresh vegetables grown within the EU are also traded within the EU. Only around 14 percent of such produce is exported to outside the EU.⁵

3.1.4 CONSUMPTION

European consumers eat a hugely diverse range of fresh vegetables from all over the world, delivered on the basis of the supply calendars of international growers and the seasonal supply of the European home-grown production. On the whole, throughout Europe, populations are getting older, there are smaller households as families have fewer children, and there is an increase in single-person households. Prosperity has risen across Europe over the years, which has, in turn, changed eating habits and increased the sophistication of the highly competitive food and drink market. Apart from the traditional requirements, such as price and quality, that still govern most buying decisions, European consumers are now increasingly looking for food that is:

Convenient

With increasingly busy lives, less time devoted to preparing long meals, and more single-person households, many European consumers now want or even demand quick, easy-to-prepare food. This has led to more ready-to-eat vegetables, pre-prepared and prepackaged, as well as to products like baby vegetables, which also make preparing meals easier.

The fresh-cut prepacked vegetables represent a growing segment (especially the more complex packs), and processing vegetables fresh at the source has some key advantages. Apart from adding more value, one advantage of producing high-care fresh vegetable products is that it allows the producers to use a higher percentage of their yield. Products which cannot be shipped off directly to supermarkets because peas are scarred, beans are not straight or too thick, and so on (around 20–50 percent of harvest) can be cut up and used in high-care fresh vegetable products (although the quality used in prepacks has gone up over time).

However, prepacked products are also technically challenging (it is easy to lose money quickly on them) and the market is maturing, which means that margins are coming down (examples include China's increasing role as an exporter of prepacked produce and Kenya's huge overcapacity in high-care processing facilities). Entering this market was therefore generally not seen as a good first step for Tanzania. Furthermore, there is a trend from fresh-cut packs of just vegetables to complete meal solutions (with meat, potatoes, and so on, all in one product), which are difficult to produce in developing countries.

“The big trend that has affected the market in Europe is convenience, particularly in the U.K. and the Netherlands. Ready-to-eat products are on the rise. U.K. consumers lead this trend, but it is now picking up all over Europe.”

Dutch importer

⁵ CBI, *EU Market Survey: Fresh Fruit and Vegetables 2005*.

Healthy

European consumers have been placing increasing importance on a healthy diet. There is rising concern among both governments and consumer nongovernmental organizations (NGOs) about the overall diet of many consumers especially in relation to the amount of additives, fat, salt and sugar consumed in many processed foods. Many groups see this as a serious threat to EU consumers' health over the next 5, 10, or even 20 years. There is special concern over the diet of children and young consumers, many who have gotten out of the habit of consuming fresh fruits and vegetables. A number of EU countries have implemented generic marketing schemes to encourage the population to eat more fresh fruit and vegetables.

Consumer Trends and the Implications for Vegetable Exports from Tanzania

From a market view point, a project designed to export vegetables from Tanzania would be in a strong position to capitalize on the current trend to be found in the EU market.

Demand for baby vegetables is growing, and there is no logical reason why, given enough time, effort, and resources, Tanzania should not be able to produce vegetables to the standards required by the organic sector and the Fairtrade Foundation. The demand for products that are both healthy and convenient also fits well into a proposed vegetable export project. So does Tanzania's ability to meet the need for exotic products sourced from ethical locations and traded by reputable companies in the end user markets.

Market niches exist for all of these areas for a greater or lesser extent. The real challenge for such a program in Tanzania will be whether the existing competition (given the nature and sheer strength of the Kenyan industry) can be overcome. The key question is whether Tanzania can establish itself as a credible supplier to the U.K. and other EU markets—not so much as to whether the market opportunities exist in the first place; clearly they do.

Ethical and Organic

Demand is growing (albeit from a relatively low base, in most cases) for sustainable food sources, environmentally and ethically sound food supply chains, and local sourcing as consumers become more aware of how food is produced and sourced. Retailers, foodservice operators, and consumers all show increasing interest from in stocking and consuming organic produce, due both to the perception that it is healthier (although there is ongoing debate over how much healthier organics really are) and to an underlying concern for the impact of conventional agriculture on the environment. In the EU, the fruit and vegetable sector is right at the forefront of the organic food sector, along with meat, dairy, and cereal-based products.

Fair trade is another niche market that has established itself in Europe, although it is not growing at the rate of organic produce. The main products marketed under this scheme are tea, coffee, cocoa, and certain tropical fruits such as bananas. These products have achieved an overall market share of some 4 percent in countries such as the U.K. The Fairtrade Foundation in the U.K. has accredited suppliers of fair trade products in some 60 countries around the world, and the concept is now being applied to other products, such as clothes, wine, flowers, and a range of other fruits, including mangoes, pineapples, and papayas. Consumers are often willing to pay a significant premium to receive goods that are certified as organic or branded as being sold under the principles of "fair trade"—as much as 35 percent in some cases.⁶

⁶ Fairtrade Foundation U.K. (referring to Fairtrade bananas).

Exotic/Fashionable/ Premium

The internationalization of the food supply chain, as well as greater awareness of international cuisine and a desire to try new things among many EU consumers, has led to an increase in demand for exotic produce. This is not to mention the ever-growing populations of non-European ancestry found across the EU that demand different food than the indigenous population. Chinese consumers living in the U.K., for example, purchase large amounts of “Asian” vegetables imported from Kenya.

“Decommoditization” (differentiation from the mainstream in general) and “premiumization” (differentiation through distinctively higher quality) are two other related trends that have particularly affected the U.K. market. The major supermarkets serving the upper end of the market (such as Waitrose and Marks & Spencer), as well as mainstream retailers (such as Tesco and Sainsbury) that include top-of-the-line products in their offerings, are all seeing rising demand for specialty, higher-quality, or more extravagant food. Examples include

- the increased use of brands for fresh fruits and vegetables;
- displaying individual supplying farmers in TV ads and in-store displays that go along with the products they supply; and
- new products such as purple-flowering broccoli or Tenderstem broccoli.

The latter is a trademark-protected broccoli variety (www.tenderstem.com), which is currently a hot vegetable; it is an example of the kind of novel high-value vegetables that could be produced in and exported from Tanzania.

3.1.5 NICHE MARKET OPPORTUNITIES IN THE EU

Organic

The market for organic produce has boomed in recent years: globally, this market was estimated to be worth US\$29 billion in 2005. Consumer demand for organic fresh produce continues to strengthen, with revenues increasing by 26 percent between 2001 and 2004 in Europe.⁷ Premiums on organic produce are still high (20–40 percent at CIF price level), but prices and margins are coming down as supermarkets such as Asda (Wal-Mart) bring organic produce items into the mainstream.

Most sales of organic fruit and vegetables are concentrated in relatively few EU markets—Germany and the U.K. alone represent over half of all European revenues. A major growth factor is the widening availability of organic products in mainstream retailers, with a growing number of supermarkets and discount stores introducing organic fresh produce.

The supermarkets often dominate sales of organic fruit and vegetables, with a 48 percent market share in Europe. (In the U.K., the figure is much higher; supermarkets there account for about 75 percent of all organic food sales.) But other channels, such as farmers’ markets and home delivery systems for organic food, are also showing phenomenal growth, albeit from a modest base. In the U.K., for example, the number of farmers’ markets went from just one in 1997 to over 500 by 2006, when they had an annual turnover of over US\$400 million—about 10 percent of all farm retail. However, while the majority of produce in farmers’ markets is organic, it is traditional British produce from the local area. The rise in

⁷ U.K. Soil Association, *Organic Market Report 2006*.

farmers' markets, therefore, has had very little direct effect on the market for imported organic vegetables.

Leading U.K. supermarkets such as Tesco, Sainsbury's, and Asda have over the last 3–4 years often encouraged large, conventionally based fresh produce companies to enter the organic market. These companies are taking up strong positions, with "organics" seen as just part of a range of products they offer their major customers. In the U.K., the retail value of the organic food and drink market was around US\$2.8 billion in 2005, with around 65 percent of produce being produced domestically. Around 65 percent of U.K. consumers in 2005 were knowingly buying organic products⁸ at some stage of the year.

Though the production of organic fruit and vegetables has increased significantly across Europe, imports continue to play an important role. Imports (mainly off-season) represented 22 percent of total sales volume in 2004, although it was often organic fruit rather than vegetables that comprised the majority of these imports. In the U.K. and Germany, demand currently outstrips supply, which has increased the reliance on imported organic produce. But as demand levels out in the future, European producers may also have increased organic capacity to meet the demand.

All food and drink sold as "organic" must be produced according to European laws on organic production. This means it comes from growers, processors, and importers registered and approved by organic certification bodies, which are in turn registered by bodies like the United Kingdom Register of Organic Food Standards (U.K. ROFS) or equivalents elsewhere in the EU. In the U.K., the Soil Association is regarded as the leading organization in the organic sector and is involved both in accrediting suppliers in the U.K. and abroad and in training, lobbying, and some degree of market promotion. It is a well-funded organization and has attracted high-profile support—probably less from the commercial agrifood sector than from politicians and environmental support groups.

Inspectors from accreditation organizations such as the Soil Association:

- Verify that organic standards are adhered to "on farm";
- Check the supply chain to ensure that no fertilizers or pesticides have been used that are not approved for organic production; and
- Check that land has been farmed organically for the initial conversion period (normally 2–3 years) before food can be sold as "organic."

In the U.K., the Department of Environment, Food and Rural Affairs (DEFRA) has a grant scheme in place to encourage farmers to convert to organic production. However, possibly more persuasive to farmers has been a recent pledge by Sainsbury's to guarantee to buy the produce coming from farms at the end of the organic conversion process.

Packing labels for food sold as "organic" must indicate the certification body that the processor or packer is registered with. The labels must include a code number, and the name or trademark of the certification body may also be shown.

⁸ U.K. Soil Association, *Organic Market Report 2006*.

Fair Trade

Fair trade is about empowerment of the rural poor. Fair prices, fair labor practices, and sustainability are key issues. Fair trade produce has been increasing in popularity across European retail chains and independent outlets, as consumers become more aware of the issues affecting Third World producers and,

The Opportunity for Tanzania in the Organic Sector

The EU market for organic food is growing at approximately 30 percent year on year.⁹ It is expected to continue expanding for the next few years, but probably at a slower rate, placing today's lucrative margins under renewed pressure from the major retailers.

There is no reason why the market for imported exotic organic produce will not grow at the same time. The process by of gaining accreditation through groups such as the Soil Association in the U.K. is now relatively transparent, and many growers around the world have been able to achieve the required standard of operation. The only danger arises from occasional media reports that air-freighted produce might be banned, as it contradicts some of the basic principles of organic produce regarding sustainability. But this position, as adopted by some NGOs, is seen as somewhat extreme at the moment.

Producing organic vegetables in Tanzania for export to the EU is therefore not beyond the realm of possibility. Organic vegetables are already grown successfully in some African countries, such as Zambia and Kenya. Nevertheless, organic production requires both dedication and expertise, and it involves a higher cost of production as well as lower yields for produce. Organic production also requires completely separated (from conventional) supply chains, including pack-houses, transport means, and so on.

Moreover, an infestation of harmful organisms poses higher risks for organic growers, who risk losing the whole crop, since they cannot spray their crops to kill the infestation and minimize losses. Successful organic export farmers in Kenya, for example, therefore typically do not grow exclusively organic crops. They devote part of their land to organic production, but diversify their risks by farming conventionally on the rest of their land.

There is a market for organic versions of exotic, off-season vegetables, and many are still not currently available on an AYR basis in Europe. However, given the potential downside with organic farming, it seems prudent to set up any organic farming project in Tanzania only on the back of an already successful operation growing the relevant vegetables.

not least, as the national and international media continues to scrutinize the power and tactics of large food companies and retailers. Most, if not all, of the large multinational food processors such as Nestlé, Danone, Unilever, and Cargill are now all paying a huge amount of attention to the issue of corporate social responsibility (CSR) and are intensely aware of the damage which can be done to their business by adverse publicity in this respect. Major retailers are likewise very much aware of the need to demonstrate their CSR credentials to the rest of the world.¹⁰

The international fruit trade has often been at the forefront of this development, and companies such as Dole, Chiquita, and Del Monte¹¹ were among the first to start actively demonstrating their CSR initiatives as long as 5–10 years ago. Unfortunately, they are not involved in the production of smallholder crops such as regular vegetables and baby vegetables.

Although significantly smaller than the market for organic foods at US\$ 1.3 billion in 2005 (including all fair trade foods, not just produce), the global fair trade market is growing fast: at 40 percent per year in the U.K., and at 20 percent in the EU, in value terms. Fair trade products have achieved an overall (market) share of some 4 percent in countries like the U.K. for products such as tea, coffee, and bananas.

⁹ U.K. Soil Association, *Organic Market Report 2006*.

¹⁰ Sainsbury has announced recently that all its bananas will be sourced from fair trade-accredited farms in the future.

¹¹ All of these companies are involved in plantation-based production of crops such as bananas, pineapples, and mangoes.

Europe represents around 65 percent of the fair trade market. Within Europe, the U.K. is the largest fair trade market, closely followed by Switzerland, but fair trade products are increasing their market share throughout Europe.

This market niche is not currently a high-growth sector for high-value vegetables such as might be exported from Tanzania. It will usually be the products that are sold in the highest volumes that will be accredited to the fair trade scheme first (in itself, quite a lengthy process), although new products are being accredited all the time. As mentioned earlier, products such as wine, flowers, clothes, and some exotic fruits are now being sold in the U.K. under the fair trade banner.

For horticultural products fair trade certification has mostly focused on fruits (bananas, mangoes, pineapples, papayas). While fair trade standards do exist for some vegetables, the only certified supplies in the EU today are coming from Egypt (fine beans, sweet peppers).

Responding to consumer demand, supermarkets are keen to expand their line of fair trade produce items. For example, Sainsbury's has shifted to (almost) 100 percent fair trade for bananas (as have some other supermarket chains elsewhere in Europe). Importers that were interviewed indicated that there is a readily available market for fair trade-certified beans, a product that is not yet available anywhere (this is a prime example of a novelty product USP that offers an interesting market opportunity for Tanzania). One importer, for example, indicated that he could easily sell 10–15 tons per week of fair trade-certified mangetout peas to his supermarket customers.

The fair trade brand is one of the most recognized brands in the U.K., with a 60 percent name recognition rate. Fair trade certification implies guaranteed minimum prices and extra premiums for producer communities. Sainsbury's, for example, pays US\$7 per box of bananas above the world market price, plus US\$1/box via fair trade for community projects (these bananas are sourced from St. Lucia and Costa Rica). Beyond these extra payments, fair trade standards have economic, social, and labor components to them, based on the standards from the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance. The Fairtrade Foundation in the U.K. is working with 600 producer groups across over 60 countries, mainly focusing on training in the field in collaboration with local NGOs.

Currently, the fair trade standards allow only cooperatives or equity share schemes to be certified, not individual farmers (working, for example, through a lead farmer) or exporters using outgrower contracts. This is certainly a problem for vegetables air-freighted out of East Africa, given that these are produced at either large commercial farms or through outgrower schemes.

However, in part at the request of supermarket chains, the standard setting and certifying body Fairtrade Labelling Organizations (FLO) International in Bonn, Germany, and the certifier Fairtrade Foundation in the U.K. are looking into how they could adapt generic standards for produce to certify these two types of production, as it would allow many rural poor to benefit from the scheme. In this context, an experiment is currently ongoing in Kenya to assess how an outgrower scheme can be fair trade-certified (involving Max Havelaar from Holland, and the U.K.-based NGO Africa Now!). Given that Tanzania's horticultural sector is smaller and in a more omnipotent early development stage, it may actually be a far better location for experimenting with fair trade-certified outgrower schemes for vegetable production.

The Market Opportunity for Tanzania in the Fair Trade Sector

Despite the constraints that go with this market sector, the fair trade label does add significant value for producers. If the market develops significantly for vegetables in the coming years, new opportunities may begin to emerge. Fair trade-certified vegetables appear to offer one of the most promising initial routes to market for Tanzanian producers. Mangetouts would be especially promising, because African producers are very competitive in them and they still fetch a premium, unlike fine beans, for example.

It is recommended that the sector start to explore opportunities with key fair trade organizations (certifiers like the Fairtrade Foundation in the U.K., importers like AgroFair in the Netherlands, NGOs, and so on). Unlike in most other areas, Kenya's lead here is relatively small. In this context, it should be pointed out that fair trade organizations evaluate, assist, and certify existing operations; they do not assist in establishing them.

However, this would necessarily be a niche market, as the market for fair trade produce across Europe is still relatively small—not growing as fast as that for organics, for example, and not currently focused on vegetables—though this could change, of course. Sales of fair trade products are often heavily concentrated in certain periods of the year, such as the “Fairtrade Fortnight” held in the U.K. in early March. Over this time, fair trade issues are given a high degree of prominence by the media—and, increasingly, by major retailers. One of the key marketing challenges for the fair trade-based sector is to keep sales levels high for most of the rest of the year and not just during periods of special attention.

The future for fair trade products lies largely in the prosperity of end markets across the EU. The general feeling in the market is that many people still buy fair trade items not due to a deep understanding (and subsequent rejection) of modern, intensive, high-tech international agrifood supply chains and trade conditions, but rather to make themselves “feel good” and, to some extent, to follow fashion. If economic prosperity dips in Europe, many in the industry believe that expensive products (such as fair trade) will be the first to leave people's shopping baskets.

Food Miles and “Local Sourcing”

As well as the issues surrounding organics and fair trade, another current high profile subject area in the European food industry is that of local sourcing and the impact of “food miles” on the environment. The 2007 Re:Fresh conference, a leading meeting of produce sector stakeholders in the U.K., was devoted to the topic. In contrast to the fair trade movement, local sourcing initiatives, in theory, could damage the prospects for East African vegetable exports to Europe in the future, along with those for exports from other parts of the world.

The argument for local sourcing is linked to questions of carbon emissions and climate change that have hit the headlines the world over. “Food miles” are the measure of the distance a food travels from “field to fork.” This includes the following:

- Road miles for all products, be it in Africa or the U.K. and/or EU.
- Air miles for produce imported by air (which is seen especially by NGOs as being highly polluting).
- Even the miles driven by consumers to supermarkets to collect their shopping.

In many ways, this whole trend represents a backlash against the trends of supermarket domination and the internationalization of the agrifood supply chain.¹² It represents a small but growing part of the overall food market in the U.K., but points to a change in shopping habits of some consumers. The strong

¹² This has also been caused by the impact of food industry scares such as bovine spongiform encephalopathy (BSE, or mad cow disease) and foot and mouth disease in the U.K. Many industry observers feel these catastrophes were caused at least to some extent by the overintensification of the farming and food supply chain, not just in the U.K. but also in other modern farming and food countries, such as other EU countries and North America. There is also concern regarding sourcing food supplies from countries such as Brazil, China, and Thailand, where standards of food safety and hygiene are deemed to be lower than in the U.K..

supporters of the food miles argument are typically the environmental NGOs. However, it is now finding increasing favor among some supermarkets and politicians as “part of the way forward for the U.K. food sector” and in effect argues for a regression to a more regional and seasonal food industry in the U.K.

This would be where food is transported to nearby regional distribution centers and consumption of much off-season produce imported thousands of miles from third countries is restricted. Air-freighted produce—as would be used from Tanzania to export to the U.K. and other EU markets—might be especially vulnerable. “Sustainability” is a key phrase and is now being widely used by the EU Commission and major commercial food processors and retailer/foodservice companies alike—with increasing emphasis on looking at the whole food supply chain from “field to fork.”

However, the food miles debate is not really about consumer pressure at this point. For example, since the beginning of 2007, leading U.K. supermarkets like Tesco¹³ and Marks & Spencer¹⁴ have added an aeroplane “air-freighted” logo to some produce to help consumers identify products with high impact on the environment more easily. A survey revealed that 60 percent of consumers actually thought the logo’s presence was a good sign, as it shows produce is flown in and should therefore be fresher and of better quality.

Furthermore, entrenched consumer shopping patterns across the U.K. and in other EU markets are very difficult to subvert, as is the massive power of private sector retail multiples (chain stores). U.K. and Continental European consumers will not stop wanting to eat baby corn, for example, on an AYR basis—not least because a generation of consumers has now become used to being able “to get whatever they want, whenever they want it.” Nor will supermarket giants be overinclined to source locally if there are significant economic benefits from sourcing produce from Africa.

There have been some suggestions from NGOs and some politicians that food imported by air might be subject to some form of additional carbon tax in the future—but no plans for this seem to be in place as yet. If this were to happen, what might be the result is that more producers and exporters from areas like East Africa will be forced to sell their produce under some sort of premium fair trade banner. This would allow them to pass on the additional costs incurred in exporting to the U.K. and other EU markets.

However, the U.K.’s leading produce importers have started to shift their procurement to start addressing the food miles issue, and also to reduce a reliance on Kenya. (Bad weather in Kenya had importers scrambling for supplies from second-string sources in 2006.) They are now sourcing from countries in North Africa and the Near East (such as Egypt, Morocco, Algeria, Turkey) and even places from which sea and/or road transport makes business sense, including the Caribbean (Jamaica) and South America (Peru).

Eye-Catching Food Miles Stories

Examples of “food miles” news that made the media headlines lately include:

- Fish products being sent from Europe to Asia, where it is processed at low cost and then flown back again to be sold at European retail outlets.
- Vegetables being sent to Kenya from all over the world to take advantage of efficient packing operations before they are flown on to Europe.

¹³ Tesco has a market share for food in the U.K. of some 30 percent and appeals to a wide range of consumers.

¹⁴ Marks & Spencer is an up-market retailer in the U.K., with a market share of some 5 percent.

“Food miles are an issue for us, but only really because they are an issue to supermarkets and consumers. Really, for us, sourcing products is more about cost than anything political or social.”

U.K. importer

The Impact of Food Miles on an Export Project in Tanzania

Although this is potentially an important issue for many, the impact of food miles on importing high-value vegetables from Tanzania and other African neighbors will probably in the mid- to long term be relatively limited.

Not only does the argument conflict with other social concerns, such as fair trade and international development, arguments are now emerging to defending products that have high food miles. The contention is that production and export of agricultural and horticultural crops from Africa might well be, in fact, more environmentally friendly than if they were produced in Europe. Europe-based production will naturally require more inputs, as well as electricity for heating and lighting, to create products of the same quality.

This aside, the main challenge for the “local sourcing” movement per se is to overcome the way that modern U.K. and Continental European consumers shop and think about food. Given the current trends for increasing convenience, the emphasis on “healthy” consumption of a wide variety of fruits and vegetables AYR, and the continuing growth of supermarkets and hypermarkets across Europe, we are unlikely to see any really significant reduction in the amount of fresh imported vegetables in Europe.

3.2 THE FRESH PRODUCE SUPPLY CHAIN

3.2.1 OVERVIEW

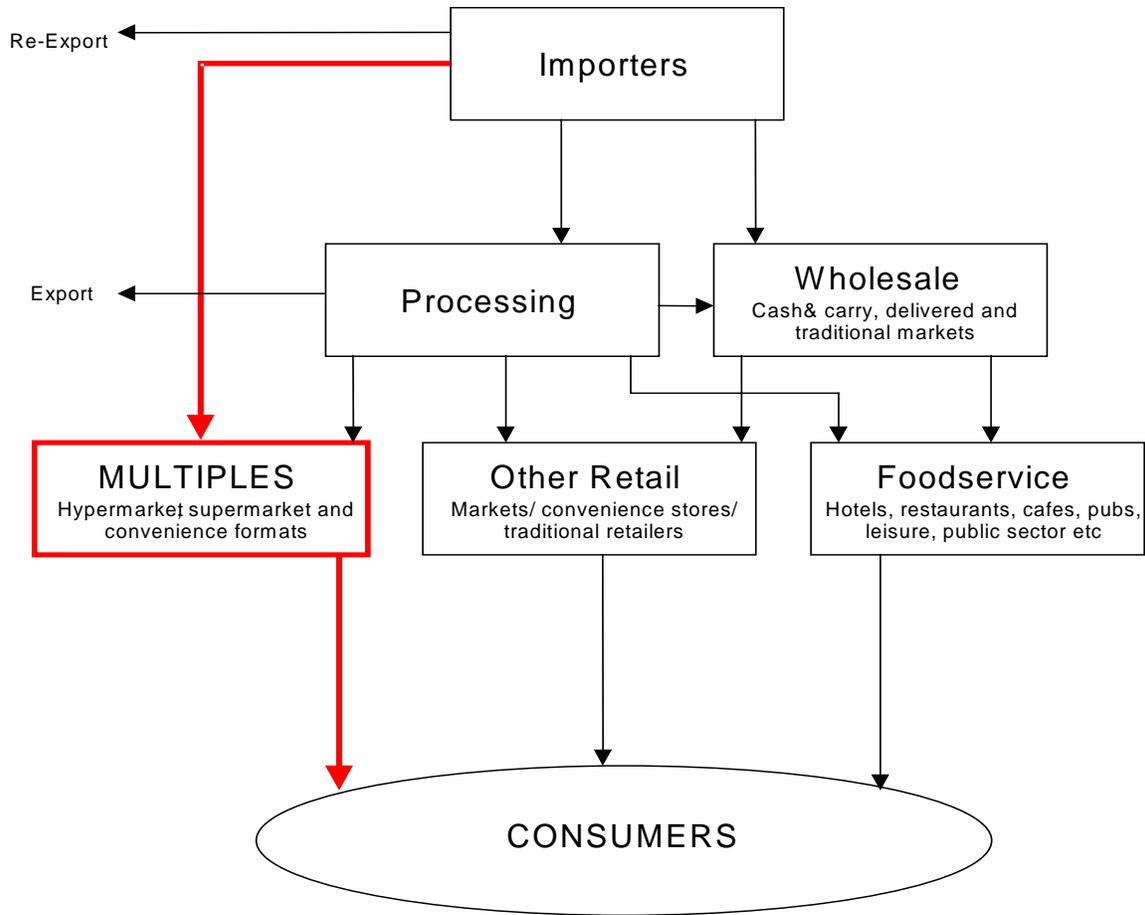
As is indicated in Figure 1 next page, the majority of fresh fruit and vegetable imports in Western Europe are made via specialist fruit and vegetable importers direct to major retail multiples. This means, in effect, that the traditional wholesale market¹⁵ system of produce distribution has been bypassed as supermarkets look to shorten supply chains and increase direct contact with growers and exporters—although importers are used to actually handle the physical act of importing and distribution.

This is particularly the case in the U.K., where supermarkets capture around 85 percent of the overall food retail market. (A generic model is used, as the percentages for each channel vary across different EU countries. For more specific details of the key end markets, see Section 4).

In Continental Europe the picture is more fragmented, as there is a larger role for traditional markets in the supply of fresh vegetables at both wholesale and retail. This is due in part to consumer preferences but also to the higher degree of liberalization, commercialization, and investment in the grocery retail industry in the U.K.

¹⁵ There are still some 30 wholesale markets in the U.K., for example. Most major cities have one; London has one large and several small ones. But in many cases their role has been confined to supplying independent retailers and catering establishments. The physical condition of many of these wholesale markets is often quite poor, and a number of them are in the process of being revamped into modern facilities more appropriate for fresh food distribution. Some food is imported, especially for ethnic populations. However, the majority of vegetable products at wholesale markets are produced in Europe.

FIGURE 1: FOOD CHAIN MODEL FOR EUROPEAN FRUIT AND VEGETABLE IMPORTS



For example, in France, long-standing legislation prevents the opening of supermarkets in the center of Paris—no such legislation exists in the U.K. for the center of London. This situation is one of the chief reasons why the massive facility at Rungis Wholesale Market in Paris is still seen as a vibrant trading place, although it clearly has not altogether escaped the pressure exerted on more traditional food distribution systems. Furthermore, growth in the supermarket sector on the Continent has been driven by the discount and hypermarket format, focusing on low prices, whereas in the U.K., supermarkets’ strategies have revolved around quality as well as value.

3.2.2 RETAIL

The EU food market is dominated by major retail chains, which exercise huge control over the rest of the supply chain. In the U.K., just five supermarkets account for about 85 percent of the overall food market. The same basic picture applies in all the main EU markets. In most cases, they are looking to shorten the supply chain and rationalize the number of suppliers of any particular category of products that they deal with. Although they might have some direct contact with growers and exporters in countries of supply, the actual task of importing and getting produce to their stores—via a network of regional distribution centers—is delegated to nominated importers.

A summary of some of the key features of three of the leading EU food retail markets is given on the following page.

As a result of the huge influence and commercial power of the major retailers in all major EU markets, there has been a massive tendency towards concentration and consolidation throughout the fresh produce supply chain, both at the level of buyer and supplier level.

“There’s been consolidation in all areas of the supply chain: importers and wholesalers with 10 key customers 5 or 6 years ago, now typically will have 2 or 3. We now try to just deal with one major exporter in each country.”

U.K. importer

The supermarkets, hypermarkets, and hard discounters that have grown to dominate the European market for all fresh produce, including vegetables, consistently demand high volumes of top-quality fresh produce, and as a result place huge importance on supply chain efficiency and best practice procurement methods. The huge growth and concentration of large retail chains in Europe has increased the tendency to want to trade directly with suppliers to simplify processes and “cut out the middleman.” This is all ultimately aimed at greater efficiency and the protection of margins, with the current downward pressure on food retail prices.

The consolidation has meant that buyers want to create strategic partnerships with suppliers, ensuring that large volumes of quality produce come from trusted suppliers regularly. This in turn has led to consolidation among producers, since they aim to provide increasing volumes to valuable, powerful European customers. This is especially the case as many smaller growers are losing their contracts to supply export organizations, since they are unable to keep up with high EU standards on production methods. Major European growers and exporters are often expanding operations and looking to start up production in countries such as Kenya, Egypt, and Central America to ensure that they can supply their target market with sufficient AYR volume.

Increasingly, the big prize for producers, regardless of where they are based in the world, is a major contract with a large U.K. and/or continental European retail chain. But to secure this, producers must be big enough to supply large volumes regularly and reliable enough not to endanger the efficiency of the supply chain.

SITUATION OF GROCERY RETAILERS IN THE U.K., GERMANY, AND THE NETHERLANDS

Country	Comments
U.K.	<ul style="list-style-type: none"> • The U.K. grocery market is worth €176 billion, of which food and drink make up €114 billion (2005). • Forecasts indicate the U.K. grocery market will reach €200 billion by 2010. • Food and other groceries make up the third biggest element of U.K. household expenditures, accounting for 13.1 percent. Housing and transport are 18.7 percent and 14.2 percent respectively. • This is a highly concentrated sector, with four players representing 75 percent of the market: Tesco (30.4 percent), Asda–Wal-mart (16.6 percent), Sainsbury's (15.9 percent), and Morrisons (11.5 percent). • Tesco remains the leading food retailer, operating around 2,365 supermarket stores in the U.K. and generating a turnover of around €39 billion. • It is expected Tesco will continue to dominate, as it leads the way with its wide range of products from discount items through to “Tesco’s Finest,” which means it can appeal to all consumers.
Germany	<ul style="list-style-type: none"> • The value of the food retail market in Germany has grown relatively slowly, going from €112.5 billion in 1994 to just €121.7 billion in 2005. • The principal winners over the past few years are discount stores and large periurban hypermarkets. • Smaller supermarkets in residential areas are becoming less popular. • The top five food retailers are Edeka Group (25 percent market share); Rewe (22 percent); two major discount groups—Schwarz-Group, which owns Lidl (17 percent) and Aldi (18 percent); and Metro (14 percent), all of which offer different store formats to appeal to many customers. • Discount stores are expected to grow further after sales in the discount sector increased from 2002 onwards. • In 2005, discount stores grew by 5.4 percent, more than any other supermarket segment.
Netherlands	<ul style="list-style-type: none"> • The value of the domestic food market is some €29 billion per annum. • 90 percent of the Netherlands food retail outlets are full-service supermarkets covering between 500 and 1,500 square meters. • The hypermarket concept is still underdeveloped in this country, with only 120 stores. • Netherlands-based retailers are currently in a price war, which has led to low food prices—among the cheapest in Europe. • Albert Heijn, Laurus, and Schuitema have a combined market share of 60 percent. • The share of discount stores in grocery retailing grew from 6 percent in 1999 to 10 percent in 2004.

3.2.3 IMPORTERS

European fruit and vegetable importers are responsible for the import formalities, such as customs and excise clearance, and often are responsible for redistributing fresh produce, either in their own country or by re-exporting to other countries within the EU. This is particularly common in a number of key centers around the EU, such as:

- The auction market based just outside Amsterdam at Aalsmeer in the Netherlands (mainly for fresh flowers).¹⁶
- The main fruit and vegetable wholesale market based at Hamburg.
- Frankfurt's large, modern facility for handling air-freighted produce, with its associated redistribution facilities.
- Other major points of entry for sea-freighted vegetables into the EU market, such as Rotterdam, Antwerp, Marseilles, and Zeebrugge.

Key importers often look to add value to products by undertaking tasks such as ripening, portioning, repackaging, and re-palletizing produce before they are redistributed. Much of this work is being pushed back up the supply chain as exporters are becoming more involved in preparing and packing vegetables ready for supermarket shelves.

In most cases, importers have long-standing relationships with key suppliers and work with them directly or through agents to advise on aspects of quality control, such as produce size, levels of maturity, and packaging. Agents are often used as intermediaries to establish contacts between exporters and importers, frequently working for wholesalers by maintaining contact with a number of foreign suppliers and taking commission on the final sales.

Supply Chain Contraction: A Fact of Life for Tanzanian Exporters

While literally hundreds of companies across the EU market specialize in handling fresh fruits and vegetables, with the ongoing consolidation of the EU retail market, the number of specialist importers that handle exotic fruits and vegetables has also shrunk. As a result, there are probably no more than 10–20 companies across the EU that really specialize in the import and distribution of exotic vegetables.

Even with these trust-based, long-term relationships in place, strategic behavior by individual agents undermines collaboration for the common interest at times. The following are two examples.

- Supermarkets are the masters of the value chain and put incredible pressure on suppliers. For example, just to keep their suppliers on their toes, a supermarket chain may auction off a certain line (for example, the green bean supplies for the upcoming year) and replace the incumbent, unless the incumbent is prepared to meet the best bidder's offer.
- Throughout the supply chain, buyers may place larger orders than actually required (maybe up to 25 percent) and then claim noncompliance with standards to reject part of a delivery so as to match actual demand (high standards will easily allow this strategy). Exporters may do this to producers, importers or wholesalers to exporters, or retailers to importers. No seller can complain about such buyer behavior

¹⁶ It is estimated that as much as 80 percent of the fresh produce that enters the Netherlands is subsequently re-exported to other EU markets, such as the U.K., France, Germany, and Scandinavia, all sourcing products using the auction system of distribution. Re-exports are also made to Eastern Europe, Russia, and even as far afield as the Middle East and North America.

for fear of losing the business. The more established and trusted the relationships, the more ethical the behavior of the agents will be.

While supermarkets dictate the products they want, it's their specialized wholesalers who develop the supply chains for these products. Hence, these wholesalers are the gatekeepers to the largest and most reliable produce markets in Europe, and should therefore be part of the business model of any Tanzanian producer.

Category Management

In the past, importers would buy a variety of produce from multiple sources (often literally depending on what was available and in season) and sell them to a range of customers. There was a strong trading mentality to the business, which was often conducted on a “day to day” basis. For the leading companies in the U.K. and other EU fresh produce businesses, this has all changed. Buyer-supplier relationships look more like partnerships as “category management” has become the preferred method of sourcing produce for major retailers.

The increasingly complex task of sourcing produce has seen the development of a whole series of joint ventures and strategic alliances around the world. This is in order to ensure consistency of supply and the ability to supply major customers on an AYR basis. As a result, links between growers, packers, and importers are both closer and more highly technical than ever in the past.

Category management is a more strategic management of product groups through trade partnerships between retailers and suppliers to ensure that sourcing reflects customer spending patterns and in-store trends. A category management team for high-value, exotic vegetables would involve members from the supermarket chain who report on consumer demand and what they want for their shelves. Importers who are able to use this information to seek out the best possible produce from around the world, making strategic partnerships with growers and key exporting organizations.

This structure aims at reliability, economies of scale, and expertise in each different product set. Suppliers will often sign contracts to supply just 1–3 retailers, and as a result, they themselves tend toward “sole-sourcing,” committing to trusted importers to ensure consistent quality, simple processes, traceability, and a dedication to customers’ demands.

Implications for a Tanzanian Export Project

Consolidation has seen import companies develop a high degree of expertise on a small range of produce and build exceptionally close relationships with just a few key retail accounts. The U.K. has gone down this route most strongly of the key EU markets and in extreme cases, firms like Asda¹⁷ have appointed just one company to deal with the full category on their behalf.

Some wholesalers, normally further down the supply chain, are now becoming importers of air-freighted products such as green beans or baby vegetables from southeastern Africa. This is because they are now able to import the required volumes directly from exporters, often prepackaged and paying the same freight cost per kilogram as major importers, thus avoiding the need to source through an importer and paying for their additional fees or markup.

The tendency for large retail chains—especially those based in the U.K.—to want to trade in direct, straight lines with suppliers has thus reduced the traditional role for wholesale importers in more developed European markets. In many cases, the role of the importer has changed over the last 5–10 years

¹⁷ Owned by Wal-Mart.

to being coordinators, quality controllers, and logistics service providers, facilitating the passage of goods to buyers, but not controlling their import and onward sale.

Leading specialized wholesalers increasingly have direct investments in overseas farms or in post-harvest facilities, such as cold-chain facilities at the airport (an important trend). These are mostly equity stakes in export firms, but also some wholly owned farms, in countries such as Zambia, The Gambia, Kenya, Jordan, Guatemala, Peru, and Egypt. If the specialized wholesalers make the initial capital investments, they may be bought out over time by the producers groups or their association. The main objectives are to secure supplies and improve efficiency. Lead importers also provide technical advice on quality control aspects (e.g., level of maturity, size), packaging, and cold chain technology through their own technical teams. Importers may also prefinance producers (at times) to help with cash flow issues (normally they pay 30 days after receiving the produce). They may go so far as to offer a price-payment guarantee to farmers, so that even if the crop fails, the farmers will get paid, just to overcome the farmers' risk-averseness during the first season.

These direct investments are part of a key trend to take place over the next 2–5 years, towards shorter and more direct supply chains—that is, direct sales by producers to the specialized wholesalers in the end market (no exporters or importers involved anymore; more vertical integration). Further in support of this development, producers will increasingly need to organize themselves at the national level to be in a better negotiating position vis-à-vis the airlines (whose rates are considered monopolistic by some key informants we spoke to). Countries where such consolidated efforts take place will be more likely to be selected as sourcing countries by the specialized wholesalers that are the gatekeepers to the supermarket chains. Organizing producers at the national level may be easier in Tanzania than in a country like Kenya, where exporting patterns are much more tied to existing structures.

Specialized wholesalers, as they are assessing potential countries to source from, will also talk to and evaluate the collaboration they anticipate from the government of the exporting country. It is always considered vital to be able to work closely with the authorities (various ministries such as agriculture and finance, the port authority, customs) to maximize the efficiency of the export processes. In one example provided by a key informant, a process was developed whereby a sample from a shipment is sent to and inspected by the source country's health inspection services in advance of the container moving from the pack house, rather than having the whole container inspected at the airport. This considerably speeds up the export process and avoids produce heating up while standing at the airport waiting for inspection before being loaded on the plane. In the present example, the wait time before being loaded on the plane dropped from 7 to 2 hours. This inspecting-by-advance-sample was accepted because the government had already inspected the high-quality infrastructure and processes at the pack house.

3.2.4 WHOLESALE

In effect, the wholesale distribution sector in Europe has become irrelevant to the major retail operators, due to the rationalization of the supermarket supply chain and the current trend for retailers to develop close technical and commercial relationships with their suppliers. Wholesale markets in Europe as a result now tend to focus their business on smaller, niche, independent retail operations and the foodservice sector, particularly HoReCa (hotels, restaurants, cafés) establishments.

As in retail, the wholesale sector has become concentrated into the hands of fewer, larger players, reducing the role for small wholesalers. Generally, wholesalers are split into “cash and carry” wholesalers, where customers visit actual physical markets and/or the wholesaler's depot and collect all

products, and “delivered” wholesalers where all products are delivered by the wholesaler. Traditional wholesale markets play an important but diminishing role in the supply of fresh vegetables and typically offer a mix of cash-and-carry and delivered services.

In the U.K., these markets, like New Covent Garden in London, for example, have wholesalers that would supply smaller, higher-class restaurants with high-quality exotic vegetables, but little to retailers (see box). The largest and probably the most sophisticated wholesale market in Europe is Rungis in Paris, which stocks a huge range of fresh produce and has valuable links to foodservice and independent retail sectors in France. Delivered wholesale has been growing in recent years, leading to increasingly large and sophisticated handling companies receiving the majority of importing and distribution business in the most developed EU countries.

A lot of the vegetables supplied by major national wholesalers to catering groups are frozen products, which reduces logistical burdens for themselves and their customers and reduces waste. Therefore, to understand how fresh vegetables are supplied, it is necessary to look towards wholesale markets and more specialist wholesalers of fresh vegetables. Major European distributor wholesalers include Fyffes, Redbridge, Mack, Geest, and the fresh produce arm of the foodservice company 3663 in the U.K., as well as the Atlanta Group in Germany, Pomona in France, and The Greenery in the Netherlands.

New Covent Garden Market and the Potential for Tanzania

The New Covent Garden market was established in 1972 as a 100 percent traditional wholesale market, selling fresh fruits and vegetables only. Today only one-third of the market is used for wholesale. Wholesalers at the market sell 70 percent of their produce to the 70 or so caterers who take up the bulk of the remaining wholesale market space. These caterers supply the small-scale HoReCa sector that is not supplied by the large foodservices firms (e.g., Brake Bros). The remaining 30 percent of the wholesale volume is sold to outside caterers (20 percent) and small, independent retailers (10 percent).

The wholesale market is not an easy entry point for Tanzanian exporters. The market is very price-competitive. Standards have risen in the wholesale market (most, but not all, caterers' customers demand the same GlobalGAP, BRC, and other certification as supermarkets do). And quality is very high, as various sources of supply are compared side by side. (Actually, while supermarkets only require compliance with a minimum standard, wholesale markets pay premium prices for premium quality.) Furthermore, it is easy to flood the market (there is no concerted effort to control volume), which means prices are relatively volatile.

It is also no longer true that wholesale markets are a channel via which an agent, importer or retailer can sell pallets of mixed-low quality produce. The management of London's three main produce wholesale markets (in addition to New Covent Garden, there are two smaller wholesale markets) have de facto banned low-quality products from the markets by introducing heavy fines on the wastage associated with these products. With respect to the products of interest in this study, baby vegetables represented small volumes at the wholesaler market (and only a few specialized wholesalers traded in them). Volumes are so small that mixed shipments of baby vegetables with other vegetables are needed to achieve the volume required for economical transportation.

These wholesalers buy a range of key produce items from the same lead importers that supply the supermarkets (including fine beans from Kenya), because it is easy to order many products with one call. Other products are procured from agents that are linked to exporters. The wholesalers are always willing to look at new products, but they are “interested” in maybe 1 or 2 out of every 10 offers they receive. The reason is similar to that of the supermarkets' specialized wholesalers: they are happy with their current supplies, so a prospective new entrant would need to bring something extra to the table.

Opportunities in the foodservice and wholesale industry are far smaller in the U.K. due to the high level of consolidation in the market.

“Wholesale markets have been in slow decline for the last 20 years and will continue to do so as supermarkets put smaller independent retailers out of business; nowadays it’s the foodservice industry that consumes the most of our wholesale products.”

U.K. wholesaler/vegetable supplier

“Ninety percent of our produce goes to supermarkets. The amount that goes to other channels—namely, wholesale, foodservice and food processing—depends on how much produce there is around at the time. It’s really a peripheral business to the multiples, as it doesn’t have the same regularity.”

U.K. importer

“In the U.K., supermarkets are really the only sensible route to market, as the demands from the wholesale, processing, and foodservice sectors are similar in terms of price and quality, and they are a more fragmented market, with more links in the supply chain that add costs.”

U.K. importer

“We do less and less business now with wholesale markets, as there has been no growth in the return we can make as the wholesale prices we are getting have been static. Now we don’t procure specifically for wholesale at all.”

U.K. importer

In Germany and France, there are more fragmented players dealing in fresh produce that may be more approachable. But this would be a competitive market with significantly smaller volumes, a fact which should be taken into account when considering options for Tanzania.

Foodservice

In terms of overall revenue, the foodservice industry is generally growing faster than the retail sector in Europe. In markets across Europe, foodservice could overtake the retail sector in terms of sales value by the middle of the next decade¹⁸ (although given the far higher margins at restaurants, food volumes would remain far lower). As in the retail sector, money spent on eating out is going to fewer, larger catering establishments.

As larger caterers and catering wholesale groups gain market share from smaller players, they are moving toward more efficient, centrally controlled systems of purchasing to get closer to direct trade with producers. Like retailers, foodservice wholesalers want reliability and conformity of produce, something that they are far more readily able to achieve with their greater buying power. Catering organizations mainly buy produce from delivered wholesalers, with smaller outfits buying from cash-and-carry wholesalers; however, the vast majority of vegetables supplied to caterers by these wholesalers will be frozen.

¹⁸ Globally, there are many predictions of foodservice revenue overtaking food retail. In the United States, estimates are usually for around the year 2010, while in the U.K., estimates usually cite 2025 as the point when foodservice will overtake retail.

The main end market for the premium fresh vegetables that are the subject of this study would be the higher end of the foodservice industry—in reality, the more expensive restaurants and hotels. With the newer varieties of baby vegetables, this would be smaller, high-quality foodservice suppliers specializing in vegetables, as well as selected catering wholesalers/distributors. Volumes supplied to the foodservice sector are likely to be far lower than to the retail sector, but buyers may be more prepared to trial smaller volumes and more exotic products, which could possibly work for small exporters like Tanzania if they had the export contacts.

However, on the whole, the foodservice industry has to be seen as a far less attractive option for Tanzanian vegetable exporters than retail. The trends in foodservice across Europe can be seen as similar to retail. The industry is far more fragmented and opaque, but due to consolidation, supplying the industry is becoming more efficient. Across Europe, similar trends can be highlighted that have already been mentioned for the retail sector: In France, foodservice establishments prefer fresh, local and seasonal produce. In Germany there is a great pressure on price. The U.K. has perhaps the most advanced market in terms of consolidation, something that can be seen to a lesser extent in the Netherlands.

In each market the major wholesaler distributors to the foodservice industry are becoming larger and fewer in number. This creates a cost-driven industry and makes supplying the foodservice sector more difficult, especially for first-time or novice exporters. Traditionally more power has lain with producers and manufacturers in this market sector, but this power is being eroded as consolidation creates major distribution companies (such as 3663 and Brake in the U.K.) that, like the EU retailers, are turning towards a “preferred supplier list.” This has resulted in major suppliers to the industry sacrificing margin for volume of products sold. However, this model is far less viable for high-value vegetables.

At the high-volume end of the foodservice market, vegetables are often frozen. It is not logistically impossible to supply frozen vegetables from Tanzania. However, as soon as they are frozen, high-value vegetables tend to lose their “high value,” since frozen products are seen as far lower quality and are only really required by the low-cost end of the sector. Therefore supplying these sort of low-margin products from Tanzania is far less attractive, as the efficiency required in the supply chain to make the business viable would be difficult (though maybe not impossible) to achieve.

Long term, the growth of the foodservice sector is something the leading growers and exporters in Tanzania should be aware of. The sector is currently serviced through the larger wholesale businesses operating in the fruit and vegetable sector. In the U.K., for example, this would include companies such as Mack, Fyffes, Poupart and Redbridge, as well as the specialist foodservice companies such as 3663, Brakes and Woodwards.

Small volumes of quality products are sold at wholesale markets to smaller independent HoReCa establishments and HoReCa suppliers, and these do present limited opportunities for African vegetable exporters. However, this is a shrinking sector, with increasingly high standards and stronger demand for local and seasonal produce (especially in France and Germany). It is more sensible for Tanzanian export projects to aim for the supermarket sector; if contracts cannot be found or produce falls short of requirements, the less reliable and transparent wholesale sectors can provide a secondary market for the produce.

The specialist foodservice distributors normally have their own dedicated produce sourcing and marketing operations. Tanzanian exporters must not fall into the trap of believing that this sector of the market in the EU is an “easy option”— at the top end of the foodservice market, quality standards are as high as they are in retail. Leading foodservice suppliers are looking to consolidate their supply bases, as the retailers have done, and introduce category management techniques over time.

As regards Tanzania’s competition, again, Kenya dominates the supply of exotic vegetables to this sector. There are modest exports to the EU in the sector from other African countries, such as Zimbabwe and Zambia, and some West African countries too. Entry requirements for supply into this sector will begin to increasingly mirror those found in the retail sector in terms of achieving GlobalGAP accreditation and the ability to supply fresh produce to the marketplace between at least 3–5 times per week via air freight. The leading players are looking for exclusive supply relationships from dedicated sources of supply and to work in mid- to long-term partnerships.

We have not carried out a full analysis of the typical margins made in the foodservice sector at this stage. However, from work carried out in this study and from past experience, we believe that the potential return to the grower in Tanzania is not likely to be significantly higher in the foodservice sector than it is from the retail business and, indeed, might actually be lower.

In summary, the growth of the foodservice sector is an opportunity for Tanzania—but as with most markets in the EU, Tanzania has lost the first-mover advantage to the Kenyans some time ago. Capturing business in this sector will be a hard battle calling for significant time and resources.

3.2.5 IMPLICATIONS FOR TANZANIAN EXPORTERS

Rationalization of the supply chain has led to consolidation in all areas. This rationalization is itself driven mainly by the growth and consolidation of major supermarkets in Europe and their increased buying power and influence on other areas of the supply chain.

At the grower level, smallholder production is increasingly losing out to larger commercial operations. There are now fewer, larger exporters that are investing more capital upstream to gain control of more of the supply chain—often owning the farms where produce is grown, for example.

In many cases, smallholders do play an important part in together supplying high volumes of produce, but with increasing pressure in terms of standards and efficiency it is difficult for exporters to supply the necessary training and transportation to a large group of small growers. These technical demands often link back to the need to ensure food safety and provide full traceability of fresh produce in such areas as pesticide applications, and they are likely to increase in importance in the future.

In Kenya, major exporters like Homegrown have become vertically integrated, exporting the produce from their own farms; controlling their own storage, cooling, and logistics facilities; and making their own transportation agreements with air freight companies, as well as having dedicated importers based in the EU. However, a move to producing 100 percent from owned farms has not yet occurred, because of outgrower schemes’ lower overhead expenses and market-related risks for the exporter.

The supply chain, therefore, has become shorter: producers, exporters, importers, and retailers are working more closely together and have more direct interest in each other’s business. In each area of the supply chain oligopolistic markets have tended to form, such that the vast majority of business in a given country passes through a handful of powerful companies. This makes the supply chain more efficient, not only because it reaps economies of scale, but also because it is simpler: with links generally removed from the chain, there are fewer interested parties, fewer levels of complication, and less potential for mistakes.

The largest market for the products that Tanzania is potentially interested in exporting to Europe will undoubtedly be the major supermarket groups. The wholesale sector, which gives access to the

independent foodservice industry and small and niche retailers, does provide some opportunity, especially in Continental Europe as opposed to the U.K., but standards for fresh produce are likely to be comparably high. Supply chains to these markets are also more fragmented, and so quality, reliability and value is sometimes lost as produce is distributed through the supply chain.

Given the pressure concerning both quality and price from Europe, the possibilities for niche export operations are small, and products would naturally have to be highly differentiated.

“Small shipments to smaller markets make no economic sense at all. You should aim to export as big a shipment as possible as fixed costs will be similar for everyone and exporting gives economies of scale. It’s the same with importers: importers are not interested in small shipments, unless they are trials, as we need to keep costs and prices down by supplying large volumes.”

Dutch importer

There is currently a small market for non-Grade I produce, but this market will shrink further as consolidation continues in the European food industry.

“Standards have gone up all over the industry so there is very little market for Grade II produce.”

Dutch importer

Exporters around the world generally produce vegetables to supermarket standards. If they do not meet these requirements, there are limited options for other routes to market through wholesalers, at much lower value.

“There is a difference in quality required by supermarkets and wholesalers/foodservice, but that gap is narrowing quickly.”

U.K. importer

While wholesale markets have certainly acted as a market outlet—at a considerably lower price—for the supermarkets’ rejected produce in the past, this is probably less the case now and still less in the future, as indicated in the box on New Covent Garden Market (in Section 3.2.4 above). It only serves to indicate that in the long run, it pays to supply supermarkets with the highest-quality products.

If Tanzanian exporters want to export significant amounts of vegetables to the leading EU retailers, it will probably be necessary to look to a large-scale, high-quality model, encourage consolidation among growers and exporters and invest in infrastructure to enable large volumes to be transported out of the country efficiently. Particularly important is the infrastructure for cooling and keeping produce cool from the journey from farm to consumer, as this greatly affects marketability.

3.2.6 ADDING VALUE AT ORIGIN

The consumer demand for convenience is having an effect not just on the way European supermarkets source and market their produce, but also offers new opportunities for growers and producers. Producers of off-season vegetables in countries such as Kenya are producing more and more “high care” products such as prepackaged stir-fry mixes, already packaged and labeled ready for retailers’ shelves. This not only increases the free on board (FOB) export values and the producers’ margins significantly, but also makes the supply chain more efficient and cost-effective.

“We aren’t seeing that much of a change in terms of the products we import. What we are seeing is more and more value being added at source, and we are giving more and more technical advice further up the supply chain.”

U.K. importer

It costs European supermarkets much more to package, grade, and label produce in their own countries, due mainly to the major differences in labor costs. Furthermore, having these operations done in the country of origin invariably places the responsibility for inventory control and traceability in the hands of the exporters, taking even more pressure off retailers.

Kenyan exporters have built up such a good reputation for adding value to produce through high-quality packaging that often vegetables from other countries are flown to Kenya to be packaged before they are flown on to the leading U.K. supermarkets. Quick to spot this trend, the Kenyans built new infrastructure for packaging produce, but they overestimated the size of the market and now have too much capacity. According to a major U.K. importer of exotic vegetables, only 50–60 percent of this capacity is now in use, so any future growth in demand for these products could still be easily absorbed by Kenyan companies in the coming years.

The market for these products in Europe is considerable and is increasing due to the changes in vegetable consumption already outlined. This could be a key market for Tanzanian exporters, but requires a great deal of investment in raw materials and packing facilities and very high standards for supply chain management, hygiene, and efficiency (see Section 3.4.3).

Currently, most U.K. and other EU importers who are involved in this sort of business believe that Tanzanian companies are losing out on this opportunity, as they must either source appropriate packaging from abroad (primarily Kenya) or transport produce to Kenya to be packaged. Investing in more of the infrastructure, materials, and technology needed for prepacking produce would therefore reduce costs for Tanzanian exporters in the long term at the same time as it would increase the value of products.

3.3 KEY EU MARKETS

Table 1 below sets out the volume and value of trade for all vegetable imports into the EU.

TABLE 1: IMPORTS OF FRESH VEGETABLES BY EU MEMBER COUNTRIES (€MN/ 000 TONS)

	2001		2003		2005		Actual Annual Growth
	Value	Volume	Value	Volume	Value	Volume	
Total EU	8,117	9,138	9,130	9,956	9,847	10,529	4.9
Intra-EU	7,022	8,111	7,864	88,757	8,465	9,314	4.8
Extra-EU	1,095	1,028	1,267	1,199	1,382	1,215	6
Developing countries	718	626	850	773	1,096	955	11.2
Germany	2,748	2,935	2,866	2,896	2,516	2,487	-2.2
U.K.	1,724	1,461	1,871	1,612	2,193	1,894	6.2
France	1,125	1,413	1,318	1,512	1,372	1,496	5.1
Netherlands	674	799	787	883	679	735	0.2
Italy	326	342	479	487	476	480	9.9
Belgium	388	879	457	1,128	481	970	5.5
Sweden	269	254	307	258	336	290	5.7
Austria	279	285	299	278	336	306	4.8
Denmark	150	147	165	159	217	167	9.7
Spain	106	188	162	252	229	339	21.2
Czech	112	258	150	310	199	379	15.5
Ireland	98	105	119	122	123	112	5.8
Finland	87	72	103	78	100	79	3.5
Poland	106	187	90	181	143	184	7.8
Portugal	78	186	89	168	90	149	3.6
Greece	28	49	66	100	50	66	15.6
Luxembourg	35	23	42	23	43	25	5.3
Slovenia	33	52	35	59	52	64	12
Hungary	11	39	29	73	70	89	55.8
Lithuania	21	34	27	34	42	51	18.9
Slovakia	20	60	26	81	53	96	27.6
Latvia	20	39	19	36	27	42	7.8
Estonia	13	25	16	31	13	22	0
Cyprus	2	2.8	3.1	4.6	4.5	4.6	22.5
Malta	1	0.7	1.3	1.2	2.7	3.9	28.2

Source: CBI (Centre for the Promotion of Imports from Developing Countries), *The Fresh Fruit and Vegetables Market in the EU*, October 2006.

From Table 1 it can be seen that:

- The overall volume of vegetable imports into the EU reached over 10.5 million tons in 2005. The increase in overall vegetable consumption forms the first building block in terms of developing exports from Tanzania to the U.K. and other key EU markets—and this market is still growing.
- The value has increased to some €9.8 billion per year.
- The leading importers of fresh vegetables are Germany, the U.K., France, and the Netherlands (the “Big 4”), together accounting for around 70 percent of EU imports by value.
- The proportion of the trade accounted for by developing countries has increased significantly and above the overall rate of market growth.

After the Big 4 markets are considered, the overall size of individual markets begins to fall quite rapidly, with no other country importing over 1 million tons in 2005. While the figure for imports into Belgium is quite high, much of this is a combination of produce from the Netherlands for domestic consumption and produce from a variety of other countries which it re-exports to other EU markets.¹⁹

The 10 “new member” EU states from Eastern Europe and the Baltic states together imported 936,000 tons—just 9 percent of all EU imports. Despite vegetable imports generally growing at a faster rate in new EU countries, the market is very small compared with the EU as a whole and will be unlikely to present substantial opportunities in the near future.

Germany, despite being the leading importer of vegetables in the EU, imports relatively little on a direct basis from Africa. Germany has often sourced its fruits and vegetables chiefly from internal EU suppliers and, outside of the EU, from countries like Turkey. It is also worthwhile noting that despite being the largest importer, Germany is the only country where fresh vegetable imports have decreased between 2001 and 2005, due to increased domestic production. Germany often sources produce from countries in East Africa and Latin America through importers based in the Netherlands.

This leaves France and the U.K. as the clear leaders in direct imports of produce from developing nations. France imports 32 percent of all vegetables the EU sources from developing nations, and the U.K. imports 25 percent.²⁰

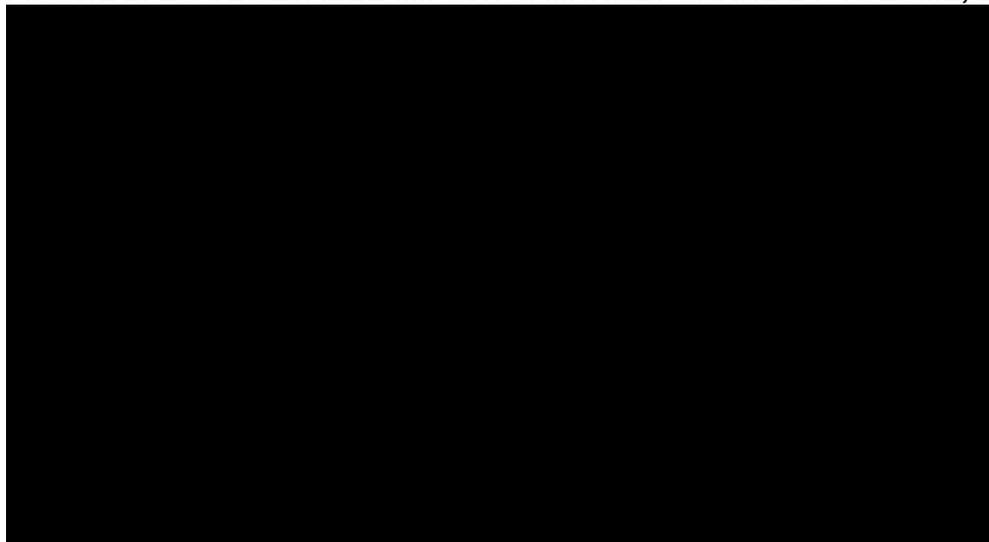
Although extra-EU imports accounted for only around 12 percent of all EU import volumes, they are growing far faster than intra-EU imports. This is the result of the growing consumption of more exotic products, as well as the growing demand for seasonal European vegetables all throughout the year. In 2005, the EU imported US\$1.3 billion worth of fresh vegetables with a volume of 955 thousand tons from developing countries (11 percent of total imports, but 80 percent of extra-EU imports).²¹ This is an increase of 53 percent in both value and volume compared to 2001.

¹⁹ In some ways the markets of Belgium and the Netherlands are quite distinct; in others, very similar. It is very common to find Netherlands-based companies operating in Belgium and vice versa, based on the ease of travel between the two and the excellent distribution, handling, and packing infrastructure found in both countries.

²⁰ CBI, *EU Market Survey: Fresh Fruit and Vegetables* 2005.

²¹ CBI, October 2006.

FIGURE 2: EU VEGETABLE IMPORTS: MARKET SHARE BY VOLUME, 2005



Source: CBI, *EU Market Survey: Fresh Fruit and Vegetables, 2005* (NL = Netherlands).

The major products imported from developing countries are beans, tomatoes, sweet peppers, and peas. The shares of developing countries in total product import value are very different across products. For tomatoes, for instance, this share is only 9 percent, while for beans it is 66 percent. Besides beans, developing countries have significant shares in total imports of fresh vegetables, including peas (61 percent), sweet corn (41 percent), asparagus (33 percent), garlic (23 percent), and artichokes (23 percent). The leading fresh vegetable exporter among all developing countries is Morocco, followed by Kenya, Turkey, Egypt, and Peru. Table 2 (next page) provides a breakdown by country for 2002.

The leading Europe-based suppliers to the EU are Spain and the Netherlands representing 60 percent of imports in value by EU member countries. Imports from outside the EU come from a plethora of other countries. These are discussed in more detail later on in this report, but Kenya is by far the biggest single supplier from Africa and has built up a significant business to all of the leading EU markets over a 30-year period. Kenya's main target market in the EU has been the U.K. followed by the Netherlands, which acts as a major re-export center for all agrifood products entering the EU from Africa, Asia, and Central and South America.

The U.K. has been the main target for the Kenyan export business, based initially on the historical links between the two countries. However, this has since been superseded by the fact that Kenyan growers, packers, and exporters have shown themselves to be consistently "best of class." They have succeeded in meeting the stringent commercial and technical demands of the leading U.K. supermarkets—in a way that many others from East and Southern Africa have not been able to do. This would include Tanzania, which has had very much a "start-stop" relationship with the U.K. market and has never really made the breakthrough there that might have been expected over the last 15 years.

TABLE 2: LEADING DEVELOPING COUNTRY (DC) SUPPLIERS TO THE EU

Produce Item	Lead supplying Countries (% of total 2002 imports from DCs)	Total share DCs
Peas, beans	Kenya (37%), Morocco (26%), Egypt (12%), Senegal (6%), Guatemala (5%)	55%
Sweet corn	Thailand (72%), Morocco (11%), Zimbabwe (6%), Zambia (5%)	48%
Capers	Turkey (96%), Morocco (4%)	21%
Asparagus	Peru (78%), Thailand (9%), South Africa (3%), Chile (2%), Morocco (2%)	21%
Onions	Argentina (34%), China (16%), Chile (13%), Egypt (11%), South Africa (6%)	12%
Zucchini	Morocco (84%), Turkey (11%), South Africa (2%), Egypt (2%)	11%
Tomatoes	Morocco (85%), Turkey (10%), Senegal (2%)	9%
Artichokes	Egypt (95%), Tunisia (5%)	7%
Mushrooms	Serbia and Montenegro (37%), Turkey (22%), China (9%), Bosnia and Herzegovina (7%)	5%
Capsicum	Turkey (60%), Morocco (18%), Dominican Rep. (4%), Thailand (3%), Jordan (3%)	5%
Eggplants	Turkey (72%), Thailand (10%), Kenya (8%), Ghana (5%)	4%
Truffles	China (88%), Croatia (11%)	4%
Cucumbers	Turkey (57%), Morocco (31%), Jordan (8%)	2%
All vegetables	Morocco (32%), Kenya (16%), Turkey (10%), Egypt (5%), Peru (4%)	10%

Source: *EU Market Survey 2004: Fresh Fruit and Vegetables*, September 2004

3.4 EU MARKET REQUIREMENTS AND STANDARDS

Market access requirements that Tanzanian exporters of fruits and vegetables will face when they export products to the EU can be divided into tariff and nontariff requirements.

3.4.1 TARIFF REQUIREMENTS

The EU has a complex import tariff regime that has traditionally aimed at protecting the domestic EU production of fruits and vegetables during the European growing season. At present, tariffs are generally higher for vegetables, as the majority can be grown within the EU. The highest tariffs are generally applied to producers and exporters in developed countries such as New Zealand, Australia, Canada, the United States, and Japan.

As a signatory to the EU–African, Caribbean, and Pacific (ACP) Countries Free Trade Agreement, Tanzania enjoys duty-free access to the EU market, as do all of the other key East and Southern African suppliers to the EU market, including Kenya, Zimbabwe, Zambia, and Uganda. However, most other countries that also supply exotic vegetables to the EU, such as those in Central America and Thailand, also have preferential trade agreements with the EU, which see them enter the market at either zero or very low rates of duty, for a whole range of agricultural and food products. This is extended to off-season fruits and vegetables.

Interestingly, Kenya will lose its status as a Least Developed Country when the current Lomé Agreement comes to an end in December 2007. This would force Kenya to negotiate a separate economic partnership agreement with the EU, likely less favorable than that for the other countries in the region and reducing its competitiveness. This may offer some

Tanzania is not at a disadvantage—or an advantage—as regards tariffs for exports to the EU market. There is no logical reason why tariffs should keep Tanzania from developing an export business to the EU.

incentives for new investments to shift from Kenya to Tanzania. Leading horticultural exporters in Kenya have already been hinting at this, especially for the flower industry.

3.4.2 NONTARIFF BARRIERS

As stated above, the situation regarding formal tariff barriers is reasonably straightforward and should not act as a disincentive to the development of Tanzanian exports of fruit and/or vegetables to the EU market. Of more concern is the ability of Tanzanian growers and exporters to meet a plethora of other requirements that can be grouped under the heading of “nontariff barriers.” These are discussed in more detail below.

Sanitary and Phytosanitary (SPS) Measures

At an international level, legislative requirements are set by the Sanitary and Phytosanitary (SPS) Measures Agreement of the World Trade Organization (WTO) and standards are set by the Codex Alimentarius Commission for Food Safety and the International Plant Protection Convention (IPPC) to ensure that all food—whether for domestic consumption or export—meets certain minimum safety criteria. The EU Commission has developed further, stricter food safety legislation in importing countries.

Due to a lack of resources, there are currently no accredited laboratories in Tanzania to verify the exact levels of disease and pesticide residues in Tanzanian vegetables. It is vital to establish such laboratories and/or ensure they are accredited to reinforce the validity of phytosanitary certificates and boost exports.²²

Exporting countries, regardless of source, must give importing countries phytosanitary certificates that will prove that SPS requirements have been satisfied. The accuracy and reliability of this certification process is important in building international trade relations. For this, exporting countries need to have the correct infrastructure, including laboratories equipped to test food for pesticide residues and other substances, as well as sufficient expertise to accurately monitor and certify the standard of their produce.

As well as measures set out by international bodies, such as the WTO, on issues such as SPS agreements, nontariff barriers are increasingly driven by the major international food retailers. In practice, though, these additional requirements are actually implemented by their nominated importers and typically cover areas of best practice or added value—these are not required by law.

These Are Now Seen As “Must Have,” Not “Nice To Have”

As a result of the intense competition in the food and drink supply chain, especially at retail level, some non-legislative requirements have in effect become mandatory for growers and exporters, if they stand any chance of winning contracts with European importers. This would apply to any export project in Tanzania as much as anywhere else.

However, they will invariably give any exporter who can meet or exceed them a significant competitive advantage. The retailers involved themselves also see these additional requirements as giving them a strong advantage over their main competitors.

²² As far as we are aware.

Health, Safety, and Environmental Requirements

In recent years, consumer health and safety has become an important issue in international agrifood trade, and the EU Commission has set up an enormous quantity of legislation to protect consumers. As legislative requirements are mostly related to requirements on the end product, there is a strong attention on “tracking and tracing” in the production and supply chain. The expression “from farm to fork” is now commonly used to describe the increasingly demanding rules for food safety that are implemented to control the product through its entire life cycle.

The main EU food retailers have also responded to the negative public opinion on their products by establishing standards on farm production and through the supply chain. This has been achieved through the adoption of the GlobalGAP management system by their suppliers and in the U.K. market (although variations of this have been adopted by other international markets too) using the British Retail Consortium (BRC)²³ protocols. Both are discussed in more detail below.

GlobalGAP

GlobalGAP (the Global Retailer Protocol for Good Agricultural Practice), formerly known as EurepGAP, is a global partnership scheme with the backing of major EU retailers that aims at promoting good agricultural practice (GAP), with 250 rules covering areas including food traceability, worker welfare, environmental issues, and food safety.²⁴ This standard attempts to develop themes of sustainable agriculture, cooperation, and transparency in the supply chain and aims at the global harmonization of agricultural standards. It also gives European importers confidence to trade with international producers from around the world. Organizations involved with GlobalGAP include:

- Major retailers across the EU.
- Major agrichemical and life science-based companies, such as Bayer and Syngenta.
- Leading food companies, especially those operating in the area of fresh fruits and vegetables.
- Leading trade associations, such as the Chilean Fresh Fruit Export Association.

However, the GlobalGAP protocol requires significant investment and know-how. Growers will require training in implementing the protocol, as well as incur extra expenses in constructing and upgrading structures like toilets, pesticide stores, shelters, and offices. Extra staff must also be employed to maintain and monitor standards

Membership in the GlobalGAP scheme in effect admits organizations and companies into a “club” of respected and proven operators in the supply chain. Many countries outside Europe, such as Kenya, Mexico, and China, have signed memorandums of understanding with GlobalGAP in order to give their growers and exporters credibility with leading produce importers and major EU retailers. Tanzania would benefit hugely from a close involvement with and participation in the GlobalGAP organization.

As a private sector-driven standard, GlobalGAP can give assurances to the importing company that produce from a specific source of supply is safe and of good quality, even if the national food control safety structures are not well developed in the exporting country.

²³ The British Retail Consortium is in effect a trade association and represents the interests of the major U.K. retail chains—all of them are members—as well as other forms of independent retailing in the U.K.

²⁴ EurepGAP announced the name change to GlobalGAP September 7, 2007, during its eighth annual conference in Thailand, “to reflect its expanding international role in establishing Good Agricultural Practices mutually agreed between multiple retailers and their suppliers” (GlobalGAP press release).

(Table 3). The lack of local certification companies also raises costs, as Tanzanian exporters often have to apply for GlobalGAP certification through more expensive multinational companies.

UNCTAD has analyzed the summarized costs of compliance and accreditation to GlobalGAP based on interviews with Tanzanian producers:

TABLE 3: TYPICAL COSTS OF GLOBALGAP COMPLIANCE—TANZANIA (US\$)

Requirement(s)	Set-Up Costs	Ongoing Annual Costs
1. Traceability	4,300	100
2. Record keeping and self-inspection	6,000	3,600
3. Site management	900	0
4. Risk assessments	1,500	300
5. Technical services	0	2,000
6. Laboratory analysis	0	3,000
7. Soil and substrate management	1,000	100
8. Fertilizer use	2,500	750
9. Crop protection	10,400	1,250
10. Irrigation/fertirrigation	600	0
11. Harvesting	9,800	200
12. Produce handling	11,300	100
13. Waste and pollution management	800	50
14. Worker health, safety and welfare	47,490	4,250
15. Environmental issues	1,100	200
16. Certification costs	1,000	2,000
17. GlobalGAP procedures	0	2,600
Total	98,690	20,500

Source: UNCTAD

The two largest producers of high-value vegetables in Tanzania (Serengeti Fresh Ltd and Gomba Estates) are both GlobalGAP certified. Situated in Arusha, Serengeti Fresh comprises four GlobalGAP-certified units supplying a BRC-accredited packhouse.

Due to its expense and sophistication, it has been argued that GlobalGAP excludes smaller growers from supplying major exporters in African countries.²⁵ Unlike the WTO standards, which do not concern themselves with farming methods but demand an “equivalence of risk outcome” when comparing product safety, GlobalGAP demands an “equivalence of system.” This means that even if produce is within limits for pesticide residues and similar substances, the correct European

GlobalGAP and smallholder farmer certification

In May 2007, GlobalGAP appointed Johannes Kern as an Observer for Africa. Working with the U.K. and German international development organizations, among others, Dr. Kern is expected to “be involved in establishing new frameworks for best practice in smallholder certification, making the system more cost-effective by developing the group certification model as well as harmonizing the approaches in Africa with smallholder schemes operating in Latin America and Asia.”

²⁵ Nevertheless, at the GlobalGAP 2005 conference, it was revealed that the number of GlobalGAP-certified growers had doubled in the previous year to 35,000, with another 10,000 applications being processed. In addition, GlobalGAP members (which are all retail chains) had increased to 275 from the 21 original founders in 1999. The implication is that accreditation can be achieved when growers (and donors) see it as important and put sufficient resources behind it.

methods must be used to satisfy Europe’s importers and retailers. However, it is not generally perceived as an insurmountable challenge:

“I don’t think that GlobalGAP accreditation is that difficult to achieve in countries like Tanzania, apart from for the really small growers. Even then it is by no means impossible, if exporters are professional and are able to co-ordinate operations with small growers efficiently. Actually, some of our African suppliers have been ahead of quite a few of our southern European suppliers in terms of getting accredited to GlobalGAP.”

U.K. importer

All major Western European retailers will now, in effect, trade only with suppliers who have achieved GlobalGAP certification. It is also now required by customers in the wholesale and foodservice industry, so that in reality, the market for uncertified produce in Europe is all but nonexistent. Knowledge of how the certification process works is essential for all interested in exporting to the EU. Details can be found at www.GlobalGAP.org.

For GlobalGAP certification of large numbers of smallholder growers, it will be necessary to organize in groups (of say 20) which act as if they are one bigger farm. The current version of GlobalGAP makes some provisions for this. The group certification model implies group representatives guaranteeing the compliance of the group members. The mechanism is self-governing in that all group members will suffer if one of them fails to comply or makes a mistake. This is further supported through a traceability system, which makes it easy to identify any culprits, and sample-based auditing by third-party organizations. Since they are usually the most sensitive to food safety problems (due diligence rules), EU importers will further reduce their risks by 1) doing some of their own testing (in addition to public sector and GlobalGAP testing), 2) providing technical advice to farms, and, linked to this, 3) taking out the high-risk elements by, for example, doing the agrochemical applications themselves.

Retailers’ Protocols

Some of the leading EU retailers also have their own specific protocols for crop production—which again are required from all suppliers, regardless of their exact location. Tesco in the U.K., for example, has developed a similar but slightly more stringent standard than GlobalGAP called Tesco’s *Nature’s Choice*. Companies that are registered with Tesco’s suppliers can be certified as having met the required standard of good agricultural practice that satisfies Tesco’s specific customers and corporate responsibilities.

Worst-Case Scenario for Smallholders

During 2002–2003, European supermarkets buying in Kenya suddenly demanded 100 percent compliance with GlobalGAP standards from African export companies. These companies, in turn, were forced to terminate contracts with thousands of small growers.

Many of the growers had a very high personal commitment to quality. But they were still not able to operate using GlobalGAP-equivalent systems—for example, measuring how many kilograms of pesticide per hectare were being applied to their crops.

This is potentially a serious concern for Tanzania, where many producers operate from very small farms.

The Bottom Line for Potential Tanzanian Exporters Is That...

...the market for produce that is not certified by GlobalGAP (or an equivalent) is now very small in Western Europe. Even wholesale markets require information on certification and provenance to satisfy their customers as to the quality and safety of produce.

“All areas of the European import sector now require a high level of accreditation.”

Dutch importer

“On the whole, I think there are far too many standards and codes of practice in the market, but they are now a fact of life in the industry. I must accept them, as my customers [supermarkets and wholesale markets] are all demanding certified produce.”

Dutch importer

BRC Global Food Standard

The British Retail Consortium’s Global Food Standard is a benchmark for food safety management and has been extensively revised to reflect changing EU legislation and continuous best practice requirements. The standard was created to establish a standard for the supply of food products and to act as a key piece of evidence for U.K. retailers and brand owners to demonstrate “due diligence” in the face of potential prosecution by such organizations as the U.K. Food Standards Agency (FSA).²⁶

This publication has now become accepted by many suppliers and even retailers in other international markets as setting the standard for food safety. Certification to the standard confirms technical competence; aids manufacturers, brand owners and retailers in meeting various legal obligations; and safeguards the consumer.

It covers such critical topics as the Hazard Analysis and Critical Control Point (HACCP) system, quality management, factory environment standards, and product and process controls. An updated version of the standard, released in 2005, dealt with traceability and food manufacturing, as well as communication between buyers and suppliers. More details of the BRC standard can be found at <http://www.brc.org.U.K./standards/certification.htm>.

COLEACP (The Europe, Africa, Caribbean, and Pacific Liaison Committee)²⁷

COLEACP has also recognized the need to formalize standards with increasing pressure on safety and quality and has produced its own **Harmonized Framework** to promote the responsible and sustainable production of horticulture in ACP countries. More details can be found at <http://www.coleacp.org/>. Allied to this initiative is COLEACP’s Pesticide Initiative Programme, which aims to enable ACP companies to comply with European food safety and traceability requirements and to consolidate the position of small-scale producers in the ACP horticultural export sector.

The combination of environmental and wellness issues can be seen in the introduction of labels such as “organic” or “biodynamic”²⁸ for food products, which are then marketed in Europe both as healthy and environmentally sound. A small but growing number of European consumers—probably in the range of 10 percent overall—are actively concerned about these issues.

²⁶ After the crisis involving bovine spongiform encephalopathy (BSE, or mad cow disease), the FSA was created as an independent, science-based organization to help restore consumer faith in U.K. food safety.

²⁷ COLEACP (in French, Comité de Liaison Europe-Afrique-Caraïbes-Pacifique) is a interprofessional network promoting sustainable horticultural trade, gathering together ACP producers/exporters and EU importers of fruit and vegetables, flowers and ornamental plants, and other companies and partners operating in the ACP/EU horticultural industry. It is based in Paris.

²⁸ Biodynamic is organic production that has a more holistic and spiritual outlook. More details at: www.biodynamic.org.uk.

Nowadays, care for the environment and for sustainable development is an integral part of trade with Europe. On the level of both the EU and its member states, legislation has been developed in order to reduce the potential environmental harm from farming, resulting in regulations on the use of pollutants, pesticides, and genetically modified organisms (GMOs) in the fresh produce industry. This kind of legislation is of special importance for companies exporting to the EU, because it is compulsory for all products traded in the EU, no matter where the products are produced.

Pesticide Residues

In Europe, pesticides are generally used in accordance with the principle “as little as possible, but as much as necessary” or “as low as reasonably achievable.” In order to have a set of standards to enable trade, check compliance with GAP, and ensure human health is protected, legally applicable maximum residue levels (MRLs) for food have been set. In the case of noncompliance, products are taken out of the market and, in some cases, fines are imposed. It is essential that all suppliers to the EU—again, regardless of source—monitor the pesticide residue levels of their produce. The annual EU PPP residues monitoring report shows that typically 2–4 percent of samples exceed MRLs. Unfortunately, due to the lack of opportunities to gather data and assess tropical products, high-value vegetables do not generally have a set MRL. This means that the acceptable level for residues of harmful chemicals is effectively zero. For more, see box below.

Tanzanian Producers and the Challenge of Pesticide Residues

A 2001 UNCTAD report²⁹ on the Kenyan market for off-season and specialty fresh vegetables and fruits may serve to highlight some of the potential challenges that the developing market in Tanzania could encounter in terms of pesticide use. The report highlights the difficulties as follows:

- The technical complex MRL issue is often difficult for extension officers to understand and effectively explain.
- Official channels for communication are not always effective, partly due to inadequate field extension capacity (due in turn to lack of funding).
- Growers and exporters rely on diverse sources of knowledge about pesticides (importers and others), many of which have tended to provide inaccurate and inconsistent information.
- Smaller growers are unable to switch to alternative, less harmful chemicals due to expense and unavailability.

Most of the products concerned in this study do not have MRLs implemented and so must be produced under other EU guidelines and the guidelines of their clients. If MRLs are implemented for high-value and baby exotic vegetables, there may be a reduction in smallholder involvement in exporting, as they may switch producing vegetables for local urban markets.

The potential problems are illustrated in UNCTAD's findings in Kenya in 2001:

- Production at the small-scale farm level has been affected by incorrect and inadequate use of inputs.
- Farmers have inadequate knowledge and skills in adhering to the use of recommended pesticides. This has affected the safety of consumers and the environment. High residue levels have reduced competitiveness of Kenyan produce in the international market. The market requirement on residual levels is analytical zero.

While the UNCTAD report refers to the situation of small-scale producers in Kenya in 2001, which in many respects will have improved since then, the same could be said today of the less developed Tanzanian market.

²⁹ “Kenya Off-Season and Speciality Fresh Vegetables and Fruits: Lessons of Experience from the Kenya Horticultural Industry,” UNCTAD background paper, 2001.

ISO 14000

ISO 14000 is a well-known environmental management system, which can also add competitive advantage to fresh produce companies exporting to the EU. The benefits of implementing this type of

management system include identifying areas for reduction in energy and other resource consumption, preventing pollution, reducing waste and its associated costs, improving community goodwill, and demonstrating commitment to high quality.

Social Requirements

Social issues concern both general labor conditions, such as minimum wage, the use of child labor, and maximum working hours, and the health and safety of the employees. Exporters to the EU market are not obliged to comply with the EU countries' legislation on labor conditions. However, the requirements of leading importers and retailers in this respect are an increasingly important concern when looking at accessing European markets. This is because of rising consumer awareness of these issues, the pressure exerted on the supply chain by certain NGOs, negative media coverage of agrifood multinationals sourcing from developing countries, and the overall growing commitment to corporate social responsibility. For these reasons, European importers and the retailers that they supply increasingly request adherence to minimal social standards from their fresh produce suppliers in developing countries.

Exporters in developing countries do not necessarily develop their own code of conduct, but have to conform to the requirements set by leading produce organizations which are frequently coordinated by industrywide bodies, such as the U.K. Fresh Produce Consortium. Such codes often require produce companies' suppliers to adhere to the standards set by the International Labour Organization.

Fair Trade

Fair trade has already been mentioned in this report in terms of its impact on the overall market for fresh produce per se. Fair trade produce carries a label that guarantees that the producer organization supplying the product has received at least the minimum accepted price for the produce that covers the cost of sustainable production as well as an extra premium that is invested in social or economic development projects.

The Fairtrade Labelling Organization International (FLO) is an umbrella body representing 20 national fair trade labeling initiatives. It can take many months to register new fair trade products and ensure the supply chain structures are properly researched, so the product range is still quite limited, but it is expanding all the time. For contact details, see http://www.fairtrade.net/fnm_europe.html.

There is a potential market for fair trade green beans, but it is unlikely that this will be extended in the immediate future to cover the types of high-value vegetables that this study is concerned with. This is due, not least, to the small share of the market they represent and the complexities involved in setting up accreditation at this stage.

3.4.3 QUALITY REQUIREMENTS

Marketing standards provide specific, legally binding requirements for certain fresh produce on the EU market. Where EU statutory standards do not exist, standards of the United Nations Economic Commission for Europe (UNECE) or Codex Alimentarius are consulted. These statutory standards are implemented at an individual country level. For example, in the U.K., horticultural inspectors from DEFRA can inspect produce at any stage of the supply chain to make sure that it complies with the standards that have been set. The level of enforcement at the government level is very low: The standards

stipulated by the EU and/or UNECE require only a bare minimum of fresh fruit and vegetable suppliers. However, if they are supplying supermarkets that are using a “category management”-style supply arrangement (see Section 3.2.3), growers will be visited before trade starts and during the contract by various parties and agents from the retailer and importer to check that standards are being met.

Vegetables subject to EU marketing standards include artichokes, asparagus, beans (other than shell beans), carrots, cauliflowers, zucchini, leeks, peas, spinach, and eggplants, to mention only those discussed in this study. There are no standards specifically for baby vegetables.

Each EC standard prescribes minimum marketing requirements and up to three quality classes: Extra Class, Class I, and Class II. These can be described briefly as follows:

- **Extra Class**—excellent quality; usually only very specially selected and presented produce
- **Class I**—good quality produce, with no important defects
- **Class II**—reasonably good quality, sound but deficient in one or two requirements, such as shape, color, or small blemishes and marks

Of far more importance than EU standards are the specifications laid down by the commercial buyers at the retail level. These standards normally take the EU and/or the UNECE standards as the starting point, but add a whole range of other specifications touching on pre- and post-harvest handling methods, use of pesticides, and other process and social requirements. These standards are normally developed in conjunction between the retail chain's technical team and their nominated importers and distributors—and in some cases, their own suppliers based in-country.

The standards may be waived temporarily in a season of extreme shortage, when supplies are too low to meet consumer demand. On the other hand, minimum sizes may be raised in a season of surplus (see Regulation 2200/96 Art. 4). Such decisions are made on an EC-wide basis.

PEACH System in the U.K.

In the U.K., the Procedure for Electronic Application for Certificates from the HMI (PEACH) system has been created for the DEFRA Horticultural Marketing Inspectorate (HMI), and is used by businesses to apply for certificates of conformity. This electronic procedure is an aid to the efficient clearance of consignments of fresh fruit and vegetables imported into or exported from the EU under Regulation 1148/2001.

EC Standards: The Example of Green Beans

Quality

The minimum standards for all green beans require the produce to be intact, clean, practically free of any visible foreign matter, fresh in appearance, practically free from pests, and free of any foreign smell and/or taste, among other things. Additional requirements are applied as follows:

- “Extra” Class must also be turgid, easily snapped, very tender, practically straight and stringless.
- Class I beans must fit the standards for Extra Class, but are allowed to have slight defects in shape, slight defects in coloring, and slight skin defects.

- Class II beans fall outside the standards for Class I and Extra Class, but fulfill all of the minimum requirements.

Most supermarkets in Western Europe will only accept produce that is at least Class I or above. There is virtually no market for Class II produce, and if there is, produce is sold at a considerable discount price.

There are very little reliable data available for the supply of Class II or lower grades of produce, or indeed for produce bought and sold through wholesale markets across Europe.

There are tolerances for each class allowing a certain percentage of product to be outside the corresponding standards. The “Extra” class may include 5 percent by number or weight of beans not satisfying the requirements of the class, but meeting those of Class I. Class I may include 10 percent by number or weight of beans not satisfying the requirements of the class, but meeting those of Class II. Ten percent are permitted to be stringed, and no more than 15 percent by number or weight may have the stalk and a small section of the narrow part of the neck missing, provided these pods remain closed and dry and are not discolored.

While there is no legal reason why Class II and III produce can be sold on the U.K. and other EU markets, the reality is that leading supermarkets will not be interested in trading produce that meets at least Class I standards as a minimum. And in most cases, they have their own additional standards and protocols, which need to be in addition to the basic statutory requirement.

For Class II beans, 10 percent by number or weight of beans satisfying neither the requirements of the class nor the minimum requirements are permitted, with the exception of produce affected by bean spot disease, rotting, or any other deterioration rendering it unfit for consumption. No more than 30 percent by number or weight of beans may have the stalk and a small section of the narrow part of the neck missing.

Size

Size is determined by the maximum width of the pod measured at right angles to the seam and is only compulsory for needle beans, in accordance with the following classification:

- Very fine: width of the pod not exceeding 6 mm.
- Fine: width of the pod not exceeding 9 mm.
- Medium: width of the pod not exceeding 12 mm. (Medium needle beans may not be placed in the “Extra” Class.)

For all classes (if sized): 10 percent by number or weight of beans not satisfying the requirements as regards sizing are tolerated.

Packaging

Beans must be packed so that they are properly protected. The materials used inside the package must be new and clean, and must not cause external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labeling has been done with nontoxic ink or glue. Stickers individually affixed on the product may not leave visible traces of glue when removed, nor may they lead to skin defects. Each package must bear the following details, visible from the outside:

- **Identification:** the name and the address of the packer and/or the dispatcher.
- **Nature of produce:** i.e., “Beans” and/or commercial type, if the contents are not visible from the outside; the name of the variety is optional.
- **Origin of produce:** country of origin and, optionally, district where grown, or national, regional or local place name.
- **Commercial specifications:** class and size. (For needle beans, this is indicated by the words “very fine,” “fine,” or “medium.”)

3.4.5 LOGISTICAL REQUIREMENTS

It is critical that imported produce reach the market in the EU via the fastest, most economical transport method that also allows the produce to arrive in the destination country in the best possible condition.

“The most important thing is that suppliers are able to get the produce out of their country effectively, in good condition, quickly and cost-effectively.”

Dutch importer

Air cargo is the main means used to transport fresh fruit and vegetables from Africa to the EU, despite being more expensive than ocean cargo. The far shorter in-transit time possible with air transport is critical for highly perishable goods. The products that this study focuses on are well established as “air-freighted” vegetables, by contrast with longer-life products—for example, butternut squash and many fruits—that can be easily transported by sea.

Frozen vegetables can also be transported by sea. The possibility of exporting frozen produce and thereby eliminating some of the time pressure is something that could be explored in Tanzania. However, the lack of high-class food processing companies and cold storage infrastructure in the country is likely to label these sorts of projects as highly ambitious in the short term. Kenya is well ahead of Tanzania in this regard, yet of all Kenyan beans exported in 2005, only 0.5 percent, or 181 tons, were frozen, which would seem to show that this model is of limited value.³⁰

The main points of entry into the EU market for air-freighted produce are as follows:

- London Heathrow
- Amsterdam Schipol
- Frankfurt International (less relevant for African vegetable imports at present)

Air-freighted products are loaded onto either passenger planes, with freight space offered by the airline, or cargo planes on regular routes, which generally belong to specialized companies. Freight forwarders are companies

London Heathrow, Amsterdam Schipol, and Frankfurt International airports each have state-of-the-art produce handling facilities and are well serviced by all of the leading international airlines that operate out of East Africa and into the EU market. They are especially well serviced by the airlines that operate out of Nairobi. The fact that there are daily overnight flights from Kenya to all major EU points of entry, as well as specialist cargo flights, means that growers and exporters from Kenya enjoy a massive advantage over other suppliers based in East Africa.

³⁰ HCDA, 2005 export data.

that arrange transportation on behalf of exporters and importers, a service that can simplify and speed up the process. There is some specialization in this field; some forwarders will be more familiar with importing to certain markets and with handling fresh vegetables, for example. It can make financial sense to use freight forwarders, as they are often able to negotiate the best rates with shipping and airline professionals. Their fee is usually added on to the transportation fee payable by the exporter.

It is essential to maintain a seamless cold chain when exporting fresh perishables to the EU. Keeping produce at the optimum temperature for the length of the journey can have an important impact on its freshness when it arrives at supermarkets and its subsequent shelf life. This process must begin immediately. Field heat must be removed by chilling the products before they are loaded onto a means of transport; this has a huge effect, since it slows the rate of respiration and ripening.

Logistics and direct air freight links are likely to be among the biggest problems stakeholders will encounter in building up the industry for Tanzanian vegetable exports. The lack of these has been one of the main reasons that Tanzanian growers have failed on international markets in the past.

“Tanzania has problems with freight links in that most produce ends up being transported by truck to Kenya to get transported to Europe... if Tanzania received significant funding it’s possible that they could look to charter flights from Dar-es-Salaam, but there’s a worldwide shortage of charter flights and air freight space in general.”

U.K. importer

Major importers in Europe require at least three deliveries of fresh produce per week, and with relatively few flights leaving Tanzanian airports for Europe, this is impossible to achieve with any degree of reliability. Therefore Tanzania must rely on the transit of produce via Nairobi, where there are more departures to Europe, superior infrastructure for fresh vegetable exports, and more air freight capacity. But going through Nairobi not only adds costs; it also loses valuable time and consequently has the potential to damage product quality.

“We need at least three deliveries a week, and ideally five days out of seven... We have reduced our contracts in Zambia because we couldn’t get the reliability of supply. The main problem for Zambian exporters is getting the produce out of the country; most of the produce goes via South Africa. This would be the most likely problem for Tanzania, assuring quality and reliability, mainly because it will be difficult to get produce out of the country efficiently.”

U.K. importer

The increasing and unpredictable cost of oil has made the industry wary of relying too heavily on air freight. Some importers who source from Morocco or Egypt are looking to experiment with receiving beans and other fruits and vegetables by road and sea, which takes longer, but is cheaper and more sustainable. This is obviously far more suitable for North African countries that are closer to Europe than Tanzania.

Air freight is the key cost element in vegetables from East Africa, making up around 50 percent of the U.K. CIF price. It is not surprising, therefore, that key informants had many things to say about it. Specialized wholesalers mentioned the following.

- With three carriers to choose from—Jomo Kenyatta International Airport, Kenya Airways, and Dar-es-Salaam—Tanzania is in a better position than some other African producers (e.g., Zambia, Zimbabwe).

- For air cargo, having both light and heavyweight products is important to balance the airplane. There thus appears to be a strong incentive for the flower and vegetable industries in Tanzania to collaborate on developing air cargo routes and negotiating prices with the airlines.
- While growing tourism offers some transport opportunities at the moment (passenger flights with extra cargo space), at some point Tanzanian producers will have to move away from relying on this channel and take the big leap to chartered flights. This will require volumes to both increase and flatten out throughout the year. Regular scheduled charter cargo planes to the EU would require volumes of 30–40 tons, 3–5 times per week, to become cost-effective. In 2005 Tanzania did manage to export on average 40 tons per week to the EU—three 40-foot containers (12 tons each) per week. However, in 2006 exported volumes dropped back to less than 1,000 tons total, and they are expected to be even lower in 2007.
- Transport costs can be made a lot less than they are today (lowering the freight’s carbon footprint as well) by reducing waste and filling container space more fully through revised packaging and stacking techniques. Experiments on this are taking place continuously, and Tanzania should get at the forefront of these developments.

Sea freight is technically an option for vegetables from Tanzania. It is significantly cheaper (by maybe 50 percent). Quality of sea freight can also be higher than air freight even with the long transportation time, because the cold chain may be more consistently preserved. Air freight from East Africa usually implies several hours on the (hot) tarmac before the produce is loaded on the plane (and again at off-loading at times).

However, by boat Tanzanian produce would take about 21–28 days to reach EU ports from Tanzania—very long relative to Egypt (from Egypt a boat takes only 7–9 days to reach the U.K. market). The lag time between order and delivery is too long and too variable for an efficient management of volumes by the EU importers. Hence, sea transportation of fresh vegetables from East Africa remains a mostly unexplored option.

3.4.6 TRACKING AND TRACING PRODUCE

In recent years, concerns over consumer safety have raised the importance of tracking and tracing imported produce to the EU. It is important that retailers can, if required, trace goods back to their producer in case of product recalls or liability cases. Traceability systems are used to identify products, their origin, and their location along the supply chain. They help determine the origin of a food safety problem and give a degree of reassurance to consumers, importers, retailers and governments alike. With increasing pressure for a totally transparent as well as efficient supply chain for European supermarkets, Tanzanian growers and exporters must take issues of labeling and traceability very seriously and ensure that they are communicating information clearly and regularly to key market contacts.

3.4.7 PACKAGING

Packaging requirements should always be discussed with the importing client. Packaging can be very important in maintaining the right microclimate for the vegetables being exported, as well as protecting them from damage. Having the correct size packaging is important also. The most common size standards for packaging shipments of vegetables to the EU from Kenya and other established sources of supply are as follows:

- Boxes: 600 x 400 mm or (half-sized) 300 x 400 mm.
- Pallets: 1000 x 1200 mm (Industrial pallets) or 800 x 1200 mm (Europallets).³¹

It is important, however, that suppliers meet all packaging regulations as well as being aware of and meeting the customers' requirements and packaging specifications, which can vary from client to client.

This is obviously especially true for the growing market for prepacked, shelf-ready packaging.

“Packaging, especially for prepacked products, is very important. Some of our suppliers claim to have EU standard packaging, but often it turns out that they don't. We have to do far too much re-packaging and when we deduct the cost for this from our payment, our suppliers often get upset.”

Dutch importer

The Kenyans, as previously mentioned, are the regional “best in class” in packaging exotic vegetable products for European retailers, often ready for supermarket shelves with all the necessary labeling and bar coding. Supermarkets like to pass this function up the supply chain to save on labor costs. However, the Kenyan suppliers had to prove themselves over a period of years as highly efficient, reliable providers of packaging services; so would Tanzanians and others wishing to do the same.

Almost all high-value vegetables under discussion are sold prepackaged in polystyrene or plastic trays, often with cellophane covering, in packs of between 150g and 500g in European supermarkets. Generally, the higher the value of the product, the more will be spent on packaging and branding. Of the products under discussion here, green beans are the only ones commonly found loose in European supermarkets. Combination packs are becoming more and more popular as a convenient vegetable portion for one or two people to have with their meal, or to add to a stir-fry, for example. Common combinations include sugar snaps and baby corn or green beans and baby carrots, but there will undoubtedly be more innovation in combinations and styles of packaging in the future.

3.4.8 NEW TECHNOLOGY

As in other areas of the agrifood sector, the fresh produce sector is awash with research and development (R&D) and with efforts to introduce a wide range of technology to the industry. Reviewing all these potential technologies and assessing their potential impact on the future development of the supply chain could be a report in its own right, but the following points should be noted at this stage:

- The likelihood that GM foods and varieties will be accepted in the EU fresh produce market over the next 5–10 years is just about nil, and it would be commercial suicide for Tanzanian growers and exporters to go down this route if they wish to penetrate the EU market. Rightly or wrongly, the level of suspicion among many EU consumers about the use of GM technology is very high and the major retailers are unlikely to take any significant risk in this direction. Nor do they probably wish to engage with highly focused and well funded NGOs on this subject which they probably see as a “no win” situation for them.

³¹ CBI, *EU Market Survey: Fresh Fruit and Vegetables 2005*.

- There are ongoing efforts to introduce higher-value seed varieties in order to produce better taste or better appearance. Most of this work is carried out by the leading seed companies, such as Syngenta, Bayer, and Seminis. Tanzania needs to at least keep a close eye on developments here and should look to engage with these companies as much as possible, as they often have significant technical expertise to offer.
- The major life-science companies have also made strong attempts to reduce the application of agrichemicals by using “smart inputs” which lessen the requirement of regular spraying. The whole issue of the use of agrichemicals for the fresh produce sector, along with the thorny subject of pesticide residue levels, is not going to go away in the short to mid-term. Any new technology in this sector should be welcomed by growers and exporters in Tanzania, as should developments in areas such as advanced disease testing.
- There are nearly always new developments in the area of packaging, such as modified-atmosphere packaging (MAP), which in theory could see the use of air freight to export products around the world largely replaced by the use of sea freight. Companies such as Kappa in the Netherlands have been carrying out extensive trial work in South Africa and Chile for products such as grapes, stonefruit, and soft citrus over a number of years. To date, however, commercializing the technology has remained a tantalizing opportunity on the horizon. Again, the challenge for Tanzania will be to keep abreast of these sorts of developments with companies like Kappa Packaging and begin an active dialogue with them. It is highly likely that if they were looking to develop R&D programs in East Africa they would go first to the Kenyan industry, and there is a danger that Tanzania might not be on their radar screen.
- One of the biggest developments in the use of technology in the international fresh produce sector during the last 10 years or so has been the expanding use of office-based technologies to enable producers, growers, and exporters to communicate effectively with each other on both technical and commercial issues, as well as the ability to analyze huge amounts of customer data and information (such as consumer behavior, supplier benchmarking, and individual store performance). If Tanzania is to be taken seriously in this sector, its managers and entrepreneurs will need excellent all-round IT skills.

It is only over the last 10–15 years that Tanzania has been attempting to make a significant impact on the EU fresh produce market, although clearly the potential has always existed to do so. The use of advanced technology in the field, in the packhouse, and in the office will clearly be critically important if Tanzania is to compete successfully with other “best in class” players—especially the Kenyans.

However, there are also fundamental hurdles to overcome in terms of physical infrastructure—roads, airports, storage, and so forth—as well as the institutional and commercial infrastructure, such as a network of well-managed businesses, access to finance and training, and some aspects of government policy. Just dumping high-tech solutions on the Tanzanian horticultural export sector is unlikely to pay real dividends without accompanying improvements in physical, institutional, and commercial infrastructure.

3.5 COST STRUCTURES

As shown in the two examples in Table 4 below, the average percentage of the retail price paid for imported vegetables in Europe that is received by the actual producer is 13 percent.

TABLE 4: EXAMPLE OF PRICING STRUCTURES FOR EU VEGETABLE IMPORTS

Stage of the Supply Chain	Mangetout from Zimbabwe		Fresh veg from Kenya
	Price (€/ton)	% of final Price	% of final price
Producer	630	11.9	14.1
Exporter	291	5.5	
Packaging	274	5.2	13.1
Air freight/handling	1,036	19.6	21.2
(Total CIF from Africa)	(2,230)	(42.2)	(48.4)
Importer Charges	624	11.8	6.1
Supermarket: stockout (the cost of not having an item in stock)	714	13.5	
Supermarket: other costs	285	5.4	
Supermarket: markup	1,427	27	45.5
Total price	5,281	100	100

Source: CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*

From analyzing supermarket prices against average U.K. wholesale prices (Table 5), the following estimates produce similar results—the producer receives around 11–13 percent of the retail sales value.

TABLE 5: ESTIMATED PRODUCER PRICES FOR U.K. SUPERMARKET BABY VEGETABLES, 2006

	Carrots	Corn	Leeks	Fine Beans	Snow Peas	Sugar Snap Peas	Cauliflower	Broccoli	Zucchini
Retail price £/kg (tesco.com)	4.64	5.96	5.60	3.60	4.64	4.64	0.62/each	0.62/each	6.45
US\$/kg ³²	9.09	11.68	10.97	7.05	9.09	9.09	1.21	1.21	12.64
Producer price £/kg	0.60	0.77	0.73	0.47	0.60	0.60	0.08/each	0.08/each	0.83
US\$/Kg	1.18	1.51	1.43	0.92	1.18	1.18	0.16	0.16	1.62

Table 6 indicates that only the percentage for baby corn falls significantly below this 11–13 percent level. It seems that retailers add far higher margins to the wholesale price, making the producer price only 5.5 percent of the retail value; the markup reflects the relatively commoditized global market for baby corn.

TABLE 6: PRODUCER PRICES SUPPLYING U.K. SUPERMARKETS BY WHOLESALE AND EXPORT PRICE

	Baby Corn	Fine Bean	Snow Peas	Sugar Snap Peas
U.K. retail price £/kg (tesco.com, Oct 2006)	5.96	3.60	4.64	4.64
U.K. wholesale price £/kg (<i>Fresh Produce Journal</i> , Sept. 15, 2006)	2.19	2.82	3.81	3.56

³² US\$ rates converted using Oanda Historical FX rates (December 31, 2006).

Average export unit value, Kenya (FAO price/ estimates)	1.11	1.43	1.93	1.80
Producer price (30% of export price)	0.33	0.43	0.60	0.54
Percentage of retail value	5.5%	11.9%	12.9%	11.6%

Source: Promar International estimates, based on desk research and trade interviews

3.6 THE MARKET FOR HIGH-VALUE AND BABY VEGETABLES

As a percentage of vegetable consumption in Europe, the overall market for high-value vegetables is relatively small. For example, in the U.K., green and fine beans, sugar snap peas, and snow peas together come to only about 1.5 percent of the wider vegetable market. With the addition of baby corn, high-value brassicas (such as baby cauliflower and baby broccoli), premium root vegetables (such as baby carrots and baby turnips), and other specialty vegetables for which data is not readily available, Promar estimates that this figure is likely around 2.5 percent of the total market share. Nevertheless, for potential exporters in Tanzania, the market is still considerable, as just 2.5 percent of the U.K. vegetable market totals around 108,000 tons.³³

Leading U.K. importers of these products, such as Mack Multiples (based in southeast England), estimate that the market for these specialty baby vegetable products is growing at around 4 percent yearly in the U.K. This is compared to under 1 percent annual growth for the overall vegetable market by volume,³⁴ which means that higher-value products are slowly growing their share of the overall shopping basket.

Tables 7 and 8 show the overall small part that high-value exotic vegetables play in U.K. vegetable consumption (this also applies to the rest of the EU). Traditional vegetables like potatoes, cauliflower, broccoli, and carrots will still sell in far higher volumes than all leguminous vegetables put together.

TABLE 7: BREAKDOWN OF U.K. VEGETABLE CONSUMPTION (%), 2006³⁵

Brassicas	Legumes	Potatoes	Roots	Salads	Other Vegetables
9.8	3.8	18.7	13.0	28.1	26.6

TABLE 8: BREAKDOWN OF U.K. LEGUMES (%), 2006³⁶

Broad beans	Green Beans	Fine Beans	Flat Beans	Runner Beans	Other beans	Snow Pea	Sugar Snap	Other Peas
9.8	3.8	18.7	13.0	13.3	0.8	8.4	9.5	7.4

Source: Fresh Produce Consortium, *RE:Fresh Directory 2006*

³³ Fresh Produce Consortium, *RE:Fresh Directory 2006*.

³⁴ Fresh Produce Consortium, *RE:Fresh Directory 2006*.

³⁵ TNS WorldPanel 2006 (www.tnsglobal.com)

³⁶ TNS WorldPanel 2006.

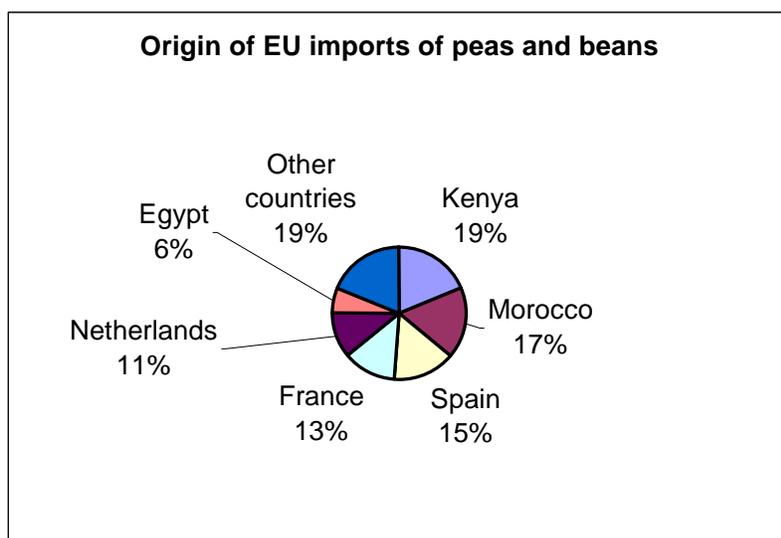
3.6.1 GREEN BEANS

Between 2001 and 2003, pea and bean imports into the EU increased by 20 percent in value and 30 percent in volume, amounting to some €440 million (coming to 469,000 tons) in 2003.

About 55 percent of the imported value was supplied by developing countries. In 2003, France was the leading EU importer of peas and beans, accounting for 23 percent of the imported value, followed by the U.K. (19 percent), the Netherlands (15 percent)³⁷ and Belgium (15 percent). The French market is typically supplied by French-speaking West African countries, while the U.K. tends to be supplied by the East African countries such as Kenya, Zambia, Zimbabwe, and Uganda, although Kenyan exporters do send reasonable volumes of produce to the French market as well.

The sale of green beans supplied to Europe has been a major source of revenue for Africa and African growers. This business has been soaring, thanks to investments in modern transportation and refrigeration facilities, especially in Kenya. African exports are likely to remain significant well into the future, as they account for most of the European supply during the period from December to May.

FIGURE 3: ORIGIN OF EU IMPORTS OF PEAS AND BEANS



Source: CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*

3.6.2 SNOW PEAS AND SUGAR SNAPS

Snow peas are essentially the same as mangetout peas, which are widely eaten in Europe, but snow peas are at a later stage of development. Snow peas began as a specialty item, but are now increasingly becoming mainstream due to their year-round availability, and are particularly popular with restaurants. Although the small volumes of snow peas sold at supermarkets and retailers are on the rise, consumers generally only recognize mangetout, so they will be regarded as the same vegetable for this study. Sugar snap peas are slightly more developed in the market than snow peas, and many people recognize them as different from mangetout. As snow peas and sugar snaps can both be eaten whole, and are good whether raw or cooked, these versatile vegetables suit the demand for convenience by modern European consumers.

³⁷ CBI *EU Market Survey 2005: Fresh Fruit and Vegetables*.

3.6.3 PATTYPAN SQUASHES

These products are not common in Europe. They are typically found in Indian outlets, and while they are beginning to be seen more often as a specialty product in the U.K., they are not a widely recognized vegetable. Pattypan are more likely to be a high-end product found in premium restaurants and more expensive supermarkets, rather than the mass market. The total European market for these products would be very small compared to that for other products.

3.6.4 BABY VEGETABLES

Specific data on the production and flows of baby vegetables are difficult to obtain, due to the small segment of the market that they occupy, their relatively recent appearance in European markets, and the dynamic nature of the sector. Most available information is around the U.K. market, which is a leader in baby vegetable consumption in Europe and should be a key target market for these products. However, production and innovation in baby vegetables is quite often driven by domestic production rather than imports. Baby corn has been by far the most successful of the baby vegetables and has become relatively mainstream. The undisputed leader in the production and export of baby corn is Thailand. There is now growing demand for other baby varieties in Europe and world wide including zucchini, leeks, broccoli and cauliflower, cabbages, lettuce, spinach, turnips, fennel, pak choi (or bok choy), eggplants, beets, butternut squash, artichokes, cucumbers, and romanesco broccoli.

Baby vegetables are still positioned at the premium end of the market and will be popular among consumers who have a passion for cooking and high-quality, innovative food. However, rather than just being fancy and fashionable, nowadays the main driver for the purchase of baby vegetables at retail level is convenience. There is generally little or no preparation required, so vegetables can be cooked quickly and are easily added to popular, convenient dishes, such as stir fry. Consumers may prefer baby carrots, in particular, to pre-prepared peeled and chopped carrot batons (carrot sticks), as they seem more pure, natural, and wholesome. Furthermore, baby vegetables are naturally sweeter, according to Univeg, a U.K. major importer of baby vegetables; they may therefore be particularly attractive to younger age groups.³⁸

Baby vegetables will also grow in popularity due to the overall shrinking in size of families and households generally. With baby vegetables, there is less waste: people who buy a whole baby cauliflower for one meal, for example, do not need to leave half or more of it to be used for later meals or, as is often the case, to be tossed out. Generally, after new baby products have proved a success with the foodservice sector, they have been slowly taken on at the major supermarket chains. For producers, contracts with retail multiples provide far larger and more reliable revenues, and this reliability is key for generating profits in the long term for suppliers. As the number of baby vegetables on supermarket shelves around Europe increases, they should be a key target market for exporters.

Many U.K. suppliers of baby vegetables grow a range of vegetables in the U.K. as well as in Spain, for example, to benefit from a warmer climate and give an AYR supply capacity. However, European growers have found that although baby vegetables command a higher price and can be cultivated more quickly, production is more difficult and labor-intensive. As baby vegetables are smaller, there is a far smaller size band within which produce must fit, so Europe's unpredictable and sometimes extreme weather makes it more difficult to produce baby vegetables there. The labor-intensive nature of production, as well as the need for a consistent climate, all support suppliers of these products based in

³⁸ "U.K. Distributors Focus on Bringing Up Baby," *Fresh Produce Journal*, August 21, 2001.

low-cost, tropical countries, which helps the competitive position of countries like Kenya (and potentially Tanzania) in the European market.

The market for prepacked vegetables is increasing rapidly in Europe. According to the *Fresh Produce Journal* (2006), around 70 percent of vegetables bought in the U.K. are now prepacked, including almost all of the target vegetables for this study. And, due to the far higher labor costs in Europe, these vegetables are increasingly being packed in the exporting country.

3.7 THE SUCCESS OF KENYA

3.7.1 INTRODUCTION

Kenya has built a highly successful industry around the export of fresh vegetables to Europe. Tanzania, like Kenya, has climatic and agricultural conditions favorable to producing the right volumes of the right vegetables. However, a number of constraints have stunted the growth of the export market in Tanzania, and it still remains a small fringe player on the international market. These constraints are discussed in more detail in Section 3.9 of this report.

In comparison, Kenya is the leading supplier of these off-season products to the EU. Growers are well organized; efficient and well-managed exporters are clustered around the main point of exit at Nairobi International Airport. Excellent, state-of-the-art cold storage facilities exist at the airport. While the cost of air freight and the availability of air cargo space are concerns, the infrastructure at Nairobi far exceeds anything to be found at any of the other East African export countries.

A very high proportion—95 percent—of Kenyan exports are destined for the EU market, with the U.K., France, and the Netherlands as the main target markets. Minor exports go to the Middle East and other African countries, but these have not shown significant growth in recent years. The focus is on building and maintaining the EU markets, which Kenya has now dominated for the past 25 years.

The Kenyan industry is well supported by a range of both public and private sector organizations, including the Horticultural Crop Development Authority (HCDA), the Kenyan Flower Council (KFC), the Fresh Produce Exporters Association of Kenya (FPEAK), and various government agencies—all highly focused on the development of export business to the EU. However, the real key to the success of the Kenyan industry is the involvement of a highly active and professional private sector.

Kenyan exports of horticultural products amounted to some 163,000 tons in 2005 and included a wide range of fruits and vegetables, as well as a huge business in cut flowers. Many of the leading Kenyan export companies have developed excellent relationships with the major importers in the EU. In some cases, they have developed joint ventures and attracted investment from abroad into their businesses. They invariably have a high level of pre- and post-harvest export skills, as well as a detailed knowledge of customer requirements in the main EU markets. They are recognized as being “best of class” by the leading supermarket chains, which dominate the food retail markets in all EU countries.

Kenyan fresh vegetable exports have been growing steadily over the past five years to around 63,000 tons per annum in 2005. Green beans, mangetout, sugar snaps, baby corn, and packs of mixed vegetables are taking an increasing share of total exports. These off-season products are outperforming the overall sector. Green beans now make up around 60 percent of all Kenyan fresh vegetable exports.

3.7.2 BACKGROUND

In Kenya (as in Tanzania), agriculture is by far the most important sector, accounting for some 30 percent of overall GDP and employing around 70 percent of the country's workforce. Where Kenya stands out from other East African neighbors is its hugely successful export industry. Agriculture accounts for around 70 percent of the country's total export earnings, and the development of the horticultural sector in Kenya has been one of the biggest success stories to be found in the Common Market for Eastern and Southern Africa (COMESA) region over the last 30 years.³⁹

The export sector was given a kickstart in the late 1970s and early 1980s by investments from major multinational companies then operating in Kenya. From this solid base Kenya was able to build up its export business and infrastructure with support of the government and the international community. In fact, in 1990–2000, Kenya's exports rose about 420 percent, from KS 35 billion to KS 146 billion.⁴⁰

The formal banking sector has also been keen to invest in Kenya's horticultural export sector, including:

- Commercial banks (these lend primarily to larger-scale producers with less perceived risk).
- The parastatal Agriculture Finance Corporation (AFC), responsible for providing development inputs and credit to the agriculture sector.
- The Co-operative Bank of Kenya, which has lent to registered cooperative societies, as well as made one-off loans to other small-scale applicants.
- The Development Bank of Kenya, which offers short-term loans to help set up production or medium-term loans for financing expansion or specific projects on functioning production sites.
- Some exporters of horticultural goods. These offer credit support to smallholder farmers with whom they have a production contract; the standing crop, which is the basis of the agreement, acts as security.

Kenya is the leading exporter of beans and peas to the EU, accounting for 19 percent of the market.⁴¹ Over the last 30 years, Kenya has built up its export of green beans and moved into the market for higher-value sugar snap and snow peas, as well as baby vegetables and specialty Chinese vegetables. Kenyan vegetable exports were valued at some US\$185 million in 2005, an increase of 15 percent over 2004.⁴² In 2005, Kenyan exports of beans were valued at US\$117 million; sugar snap and snow peas at US\$16 million, which represent 63.5 percent and 8.6 percent of Kenya's total vegetable export revenue respectively. Tanzania is now considering entering a very different market than the Kenyan companies 30 years ago and to a great extent will have to fit in with an already quite mature market, rather than ride on the back of new, booming opportunities.

One of the main factors restricting the development of Kenya's horticultural production is the amount of available water in the country. Despite Lake Victoria covering 8 percent of the country, the National Development Plan 2002–2008 recognizes Kenya as a water-scarce country—one in which water demand exceeds renewable freshwater sources. Total internal renewable water resources amount to around 20

³⁹ CFTC, *Establishment of an Association of Southern African Horticultural Producers and Exporters*, September 2001.

⁴⁰ Ibid.

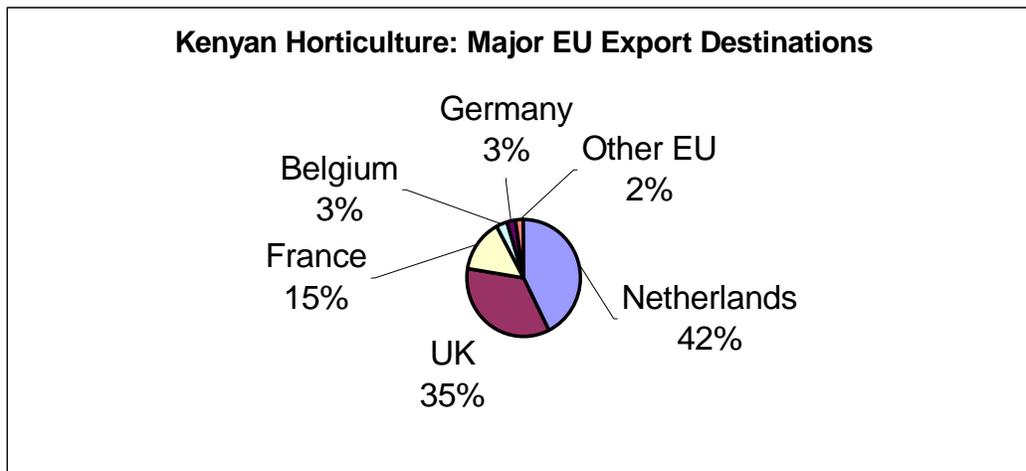
⁴¹ CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*.

⁴² HCDA: <http://www.hcda.or.ke> *Annual Values*, 2005.

km³/yr compared to 84 in Tanzania,⁴³ one factor that certainly favors Tanzania over Kenya as a potential future source of supply to the international market.

3.7.3 KEY EUROPEAN MARKETS

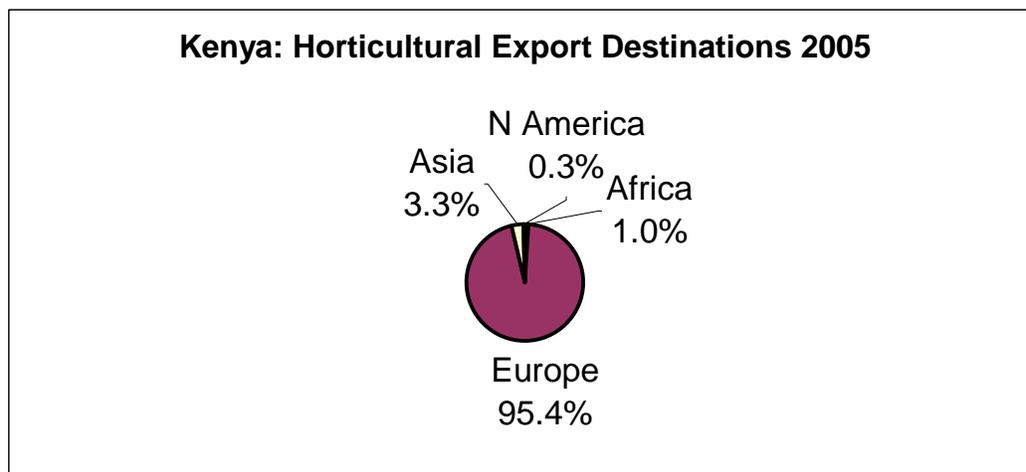
FIGURE 4: KENYAN HORTICULTURE: MAJOR EU EXPORT DESTINATIONS



Source: HCDA 2006

The main European markets for Kenya’s produce have been the U.K. (especially for the trade in green beans and specialty Asian vegetables), the Netherlands (mainly for cut flowers and as a key re-export market) and to a lesser extent France, Germany, and Belgium. For historical and cultural reasons, France tends to source produce from West African nations and Germany sources vegetables largely from within the EU. Imports are made into Germany via Frankfurt Airport, which has excellent produce-handling facilities. Produce is then moved on to other EU markets and distributed throughout Germany.

FIGURE 5: KENYA: HORTICULTURAL EXPORT DESTINATIONS, 2005



Source: HCDA 2006

⁴³ FAO’s Aquastat website: <http://www.fao.org/ag/agl/aglw/aquastat/countries/kenya/index.stm>.

The Middle East has also been a target market for small volumes of Kenyan produce. However, in reality this is restricted to Jeddah in Saudi Arabia and Dubai in the UAE, which are well served by air connections and have large ethnic populations with varying tastes for fresh vegetables. With the further deregulation of internal markets in the South and East of Africa, there may be growing opportunities to export to South Africa in the future.

3.7.4 INDUSTRY STRUCTURE

The Role of the Government

Since horticulture offers (relatively) high returns for small farmers with limited land resources, the sector has been the center of focus for government development policies for a number of years, including the current Poverty Reduction Strategy Programs, to which it is expected to make a substantial contribution.

Despite government involvement, the success of the Kenyan export sector has largely been due to the strong involvement of the private sector. Initially, this came from the involvement of foreign-owned multinationals, such as Unilever, Tate & Lyle, and Del Monte.⁴⁴ Present sources of investment include:

- Local private sector businesses, owned by both Kenyan Asians and Kenyan Africans.
- Attraction of agricultural sector investors from countries such as Israel and the Netherlands.
- The involvement of some of the international aid agencies, such as the International Finance Corporation.

This has seen the development of well-organized and entrepreneurial businesses that are willing to make that sort of investments required to build and then sustain an export business. This has been possible for a number of reasons, not least the relative macroeconomic and political stability enjoyed in Kenya. This has given private sector entrepreneurs sufficient confidence to invest in their businesses on a long-term basis. The involvement of the international aid sector in the development of the sector has also been evident in Kenya. However, given the strength of private sector companies in this industry over the years, it is likely that a successful export sector would have been created even without this assistance.

Although Kenya has experienced great success in developing its export sector, there are still challenges and improvements that can be made at a macropolitical level. Horticultural exports would be aided by further liberalization of the economy, as well as the continued deregulation within the East and Southern African (COMESA) region (which could potentially stimulate inter-country trade with neighbors like Tanzania). Also, despite being long strides ahead of neighboring African countries, improvements could be made to the physical infrastructure that the industry relies on, especially in rural areas. Another key point for involvement could be in R&D, supported by capacity building through education, to create improved strategies for developing the portfolio of produce grown in and exported from Kenya to maximize the value of the sector and maintain competitive advantage into the future.

⁴⁴ Del Monte is not directly involved in the export of off-season vegetables, but it is still a major influence in the development of Kenya's exports of fresh and processed fruit and the development of its international reputation on world markets. If international companies see the Del Monte brand associated with international trade with Kenya, it is likely to give them confidence in the suitability of Kenya as a trading partner for other food products and the capability of Kenyan producers to meet international standards.

The Horticultural Crop Development Association (HCDA)

Over the years, the HCDA's functions have evolved with the changing government policies and industry demands. Initially, as a government-managed parastatal, it focused on trade development and marketing, developing products, opening up new production areas and markets, undertaking market promotions, and marketing produce on behalf of the farmers.

However, with liberalization and reduced government involvement in direct trading, HCDA's role has been changed to regulating and facilitating, to ensure a smooth production and marketing environment and advocate for policies that favor investment and enhanced performance of the sector.

The Fresh Produce Exporters Association of Kenya (FPEAK)

FPEAK was first created in 1975 to bring together grower and exporter organizations in order to develop and promote the horticulture industry. Towards the end of the 1990s, it was boosted by considerable financial support from USAID; it also receives income from around 190 members. FPEAK has worked hard to establish a Code of Conduct to outline best practice in the horticultural industry in Kenya.

3.7.5 LOGISTICS

The vast majority of Kenya's fresh vegetable exports are carried out using air freight. The airport at Nairobi is regarded as the main hub in the East African region. Horticultural products are exported both on passenger and specialized air freight services. Sea freight is not currently an option for the majority of Kenyan horticultural exports, partly due to a lack of infrastructure, but also because the typical products exported have a limited shelf life.

Nairobi Cargo Centre, a major facility for handling fresh produce at Jomo Kenyatta airport in Nairobi, has sharply boosted the efficiency and capacity of air freight into and out of Kenya. The US\$20 million investment was opened in May 1999, funded by local and international investors and development groups. The cargo center has capacity for 70,000 tons, with a huge cold storage facility. The center is fully computerized and is able to relay information to airlines, freight forwarders, and customs authorities all over the world. Due to the capacity of this facility, the market for freight handling has been opened up to allow smaller handlers to gain business that was previously all controlled by Kenya Airways Cargo Handling. The center also facilitates the transshipment of produce from other African countries. This facility is one of the key elements in the ongoing success of Kenya's horticultural export industry.

3.7.6 VEGETABLE EXPORTS

As shown in Figure 6, Kenyan exports of fresh vegetables have increased at a compound annual growth rate of 5.87 percent from 2000 to 2005, assisted by the excellent harvests of 2005. For 2006, statistics will probably show a decline in total vegetable exports, based on HCDA data from January–July 2006 (see Table 9). However, by breaking the data down into product sets, it is evident that exports for baby vegetables, sugar snap, snow peas, green beans, and mixed vegetables (a category which includes products like stir-fry vegetable packs) will continue on a path of strong growth. This confirms that they are areas with significant potential and are gaining a greater share of the Kenyan export market as exporters move to higher-value and value-added products.

FIGURE 6: KENYAN VEGETABLE EXPORTS BY VOLUME

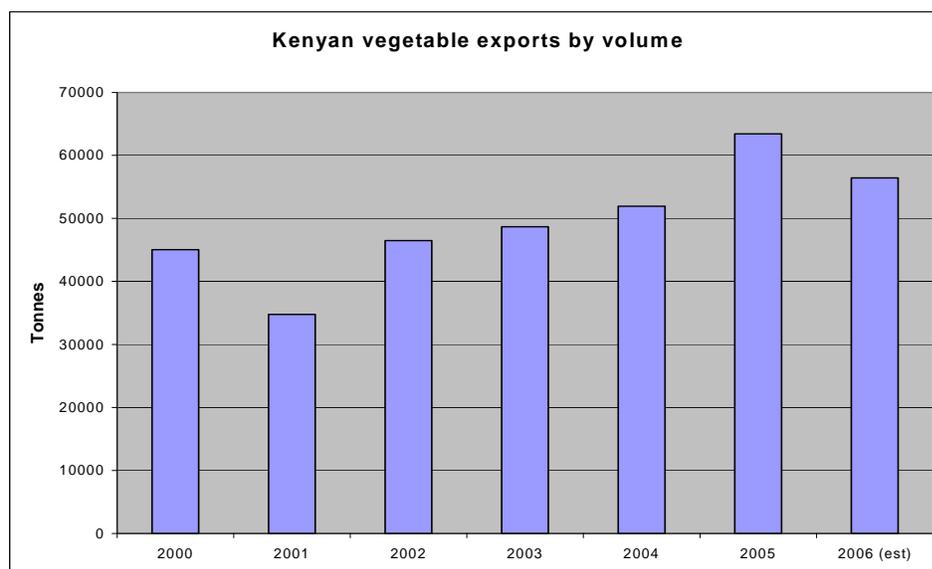


TABLE 9: GROWTH IN VEGETABLE EXPORTS FROM KENYA, 2005–2006 (TONS)

	2005	2006	Growth
All vegetables	63,427	56,443,	-11%
Beans	37,791,	40,6401	7.50%
Baby Corn	195	248	26%
Sugar Snap and Snow Peas	4,013	4,293	7%
Mixed Vegetables	5,756	9,597,	66%

Source: HCDA, 2006 data is extrapolated from Jan-July 2006 actual data

Products that decreased in export volume include various important but “second string” products in Kenya. These include capsicum, chili peppers, zucchini, and okra, all of which showed significant decreases in the first six months of 2006 compared with the same period in 2005.⁴⁵

In terms of the future development of the Kenyan horticultural export sector, the following summarizes what we see as the key factors:

Drivers	Constraints
<ul style="list-style-type: none"> The potential exists to extend export operations into liberalizing markets, including the COMESA region (especially South Africa) and Central and Eastern Europe 	<ul style="list-style-type: none"> Continual improvement of infrastructure in rural areas is needed There is a lack of R&D to establish new and niche products and stay ahead of the market

⁴⁵ January-July statistics (kg): **Capsicums**: 2005: 9,360, 2006: 2,913; **Regular Chili Peppers**: 2005: 232,127, 2006: 217,864; **Zucchini**: 2005: 34,062, 2006: 31,645; **Okra**: 2005: 865,314, 2006: 662,631. Source: HCDA.

<ul style="list-style-type: none"> • New and niche products could provide new areas for growth • Added-value products could boost export revenues • Kenya offers a wealth of experience and expertise • Strategic relationships with EU importers may help Kenyans develop new products and services in the future • Nairobi's transport and storage infrastructure is highly advanced 	<ul style="list-style-type: none"> • New EU legislation and tighter controls threaten the involvement of smaller growers • There have been high post-harvest losses in various locations in the supply chain • Availability of water has often been cited as a potential problem in Kenya • The cost and capacity of air freight are continued concerns • Kenya is less politically and economically stable than many Western alternatives for sourcing vegetable imports
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3.8 OTHER AFRICAN SUPPLIERS

Table 9, above, shows that Kenya is by far the leading exporter from East and Southern Africa in the relevant vegetable groups, with over 80 percent of the group's EU exports. Tanzania has a 3 percent share, coming in behind Kenya, Zambia, and Zimbabwe. This reinforces the point that Tanzania's realistic competitors in supplying fresh vegetables to Europe will be countries like Zambia, Zimbabwe, South Africa and Uganda, rather than Kenya, with its long lead in the industry.

TABLE 10: SELECTED FRESH VEGETABLE EXPORTS FROM SOUTH AND EAST AFRICAN COUNTRIES TO THE 25 EU MEMBER STATES, 2005 (TONS)

	Leeks	Cau/Bro	Peas	Beans	Sweetcorn	Courgettes	Totals
Kenya	356	90	10,528	30,440	378	19	41,811
Tanzania	30	0	494	975	85	0	1,584
Uganda	0	0	4	11	0	0	15
S Africa	222	9	42	2	213	187	675
Zambia	0	5	1,488	1,266	614	128	3,501
Zimbabwe	5	1	1,725	1,908	67	2	3,708

Source: EU Eurostat data

Zambia

Zambian growers have moved into the market for value-added and baby vegetables and are building a reputation for horticultural exports around the world. The largest horticultural exporter from Zambia, York Farms, has built a strong portfolio of high-value vegetables (baby corn, fine beans, snow peas, sugar snap, baby carrots, baby zucchini, baby leeks, Tenderstem broccoli, and chili peppers) that it exports to Tesco in the U.K., South Africa, Australia and New Zealand. It is an innovative company, and difficult trading conditions in recent years have made the organization more efficient, stimulating it to look to different target markets and different products (such as organics) and modifying its use of pesticides.⁴⁶

⁴⁶ Source: www.worldgrower.com 24/08/2006.

Zimbabwe

The horticultural export industry has achieved strong growth since it started in Zimbabwe in the 1980s. It is now the second largest foreign exchange earner for Zimbabwe after tobacco.⁴⁷ The bulk of its vegetable exports go to the U.K. Abundant sunshine, sufficient rain, dry winters, and deep fertile soils provide a cropping opportunity on an AYR basis.

The Horticultural Promotion Council of Zimbabwe (HPCZ) is a producer-led body with the remit to create and sustain an environment for the maintenance and expansion of the horticultural sector in the country. Recent years have seen a highly unstable political and economic situation, which has made exports increasingly difficult for growers and packers. The HPCZ puts the cost of air freight down as one of the major weaknesses for the export industry in Zimbabwe. It estimates that air freight rates in Zimbabwe run between US\$1.90 and US\$2.20 per kilo, while they are US\$1.80–US\$2.00 in Zambia and just US\$1.80 in Tanzania and Kenya.

3.9 OPPORTUNITIES AND CHALLENGES FOR TANZANIA

3.9.1 PROGRESS TO DATE

In comparison with the Kenyan industry, attempts to get the horticultural export industry off the ground in Tanzania have long been slow and sporadic. There are bright spots in the picture, however. The market for green beans is perhaps the most obvious and recent success story: the volume of exports by companies like Gomba Estates and Serengeti Fresh has recently grown quite significantly, and sources include a number of smallholder farmers. A recent diagnostic trade integration study claims that further crop investment would stimulate production of a wider range of crops, allowing higher-value produce to be grown, targeting more specific markets, and ultimately generating higher margins for farmers.

The majority of European vegetable exports from Tanzania that relate to this study go to the U.K.—and it is only the U.K. and the Netherlands that have any significant, growing, and regular trade in these vegetables with Tanzania. Table 11 shows that exports of the target products to the target markets to date in Tanzania are very small, but strongest in green beans. According to EU trade data, only peas and beans are exported in any significant volumes to Germany, U.K., Netherlands and France, though a market for sweet corn has been developing since 2002.

TABLE 11: FRESH VEGETABLE EXPORTS FROM TANZANIA TO TARGET COUNTRIES, 2000–2005 (TONS)

	Beans	Peas	Sweet Corn	Leeks	Totals
U.K.	2,077	609	227	31	2,944
Netherlands	516	296	2	0	814
France	124	31	0.5	0	155.5
Germany	5	5	0	0	10
Total	2,722	941	229.5	31	3,923.5

Source: Eurostat

⁴⁷ The Growth and Development of the Horticultural Sector in Zimbabwe, Stanley T Heri, UNCTAD Conference, 2000.

Table 12 shows that volumes of fresh vegetable exports from Tanzania to the target EU markets have increased significantly since 2000, although they are still small, and that the main markets for success have been the U.K. and the Netherlands.

TABLE 12: TANZANIAN FRESH VEGETABLE EXPORT GROWTH, 2001–2005 (TONS)

	2000	2001	2002	2003	2004	2005
U.K.	47	296	390	221	855	1,134
Netherlands	0	13	13	2	379	408
France	0	0	0	44	105	6
Germany	0	3	0	0	5	2
Total	47	312	403	267	1,344	1,550

Source: Eurostat

Table 13 below provides Tanzania export data for selected high-value export vegetables based on data from the Tanzania Revenue Authority. While these data show some discrepancies from the Eurostat data above (which are based on EU import statistics), the two datasets largely confirm some major points. The data show that, while fluctuating around 3,000 tons per year, export volumes have generally trended down over the period 2003–2006, especially for key destination markets U.K. and the Netherlands.

The 2006 data appear to indicate that volumes are increasingly exported via Kenya rather than directly to the EU. This helps explain why per kg values fell dramatically in 2006, after an upward trend over 2003–2005 (although Kenya export prices are abnormally low).

It should further be pointed out that Tanzania exports to a wide variety of EU and non-EU countries, covering all continents, as the table notes.

TABLE 13: TANZANIA'S EXPORT OF HIGH-VALUE VEGETABLES BY DESTINATION COUNTRY

Destination Country	2003			2004			2005			2006		
	Val	Vol	Price									
United Kingdom	4,084	1,103	3.70	3,315	811	4.09	5,994	1,421	4.22	3,258	747	4.36
Netherlands	151	116	1.31	1,350	479	2.82	1,813	616	2.94	875	252	3.48
Other EU	175	105	1.66	463	134	3.46	93	25	3.74	30	8	3.58
Kenya	218	1,068	0.20	242	504	0.48	88	708	0.12	116	1,033	0.11
Other non-EU	752	2,232	0.34	285	783	0.36	120	245	0.49	304	614	0.50
TOTAL:	5,380	4,623	1.16	5,656	2,711	2.09	8,108	3,016	2.69	4,585	2,654	1.73

Notes: Calculated from Tanzania Revenue Authority data. Values are FOB in US\$000. Volumes are in tons. Prices are in US\$ per kg.

Other EU countries include France, Germany, Belgium, Italy, Hungary, and Greece. Other non-EU countries include Botswana, Oman, Democratic Republic of the Congo, India, Bulgaria, Rwanda, United States, United Arab Emirates, Australia, South Africa, Pakistan, Singapore, Bangladesh, Switzerland, Brazil, Australia, Ecuador, The Gambia, and Israel. Products include leeks, cauliflowers, red and white cabbages, carrots and turnips, peas, beans, leguminous vegetables, eggplants, celery, and other fresh vegetables.

3.9.2 MAJOR WEAKNESSES

Based on the (desk) research carried out on this study and the small number of interviews with leading U.K. and Continental EU importers and distributors (see Section 6 of this report), the following have been identified as being major weaknesses to overcome in the Tanzanian supply chain:

- A lack of modern handling facilities, including high-quality packaging and refrigeration amenities.
- Few direct flights from Tanzania to Europe—nondirect routes add substantially to costs and time.
- Lengthy, bureaucratic internal customs procedures at the point of exit.
- Weak links with international buyers in key international markets.
- Produce that falls short of international market requirements.
- Competing with countries within the EU that receive subsidies.
- Challenge of compliance with standards (costs, sophistication, tightening restrictions).
- Integrating the thousands of small producers into a modern supply chain.
- The lack of well-managed and well-organized systems of procurement.
- The lack of highly professional export and packing operations capable of meeting international market standards.

It is clear that in comparison with the more established growers and exporters in East Africa, Tanzania is almost a full generation behind the “best in class” in terms of developing its horticultural export sector. A huge amount of work remains to be done before the sort of international market recognition that has been achieved by Kenya, Zambia, and Zimbabwe can be gained.

3.9.3 POTENTIAL MARKET AREAS

It is unlikely that Tanzanian vegetable exports to Europe will be able to compete—at least in the short term—with the long-established exporters like Kenya. More possible is that Tanzania may be able to gain market share from other “second string” exporting nations from Africa by exploiting the growth opportunities in a few niche areas for high-value (and value-added) vegetables and building on current contacts in the U.K.

Specializing in the supply of baby vegetables may possibly fill a growing gap in the EU market. Not only are these products sold for a far higher value at retail in the more developed European countries, there are also significant opportunities for adding value through pre-preparing, bundling (having more than one variety in one packet), and packaging. This should return more revenue to Tanzanian farmers and exporters and may therefore require handling less volume as the market and infrastructure in Tanzania develops.

Based on the feedback gained from leading U.K. and other EU importers, however, it is unlikely that Tanzania’s growers would be able to produce vegetables much more inexpensively, more reliably, or at a much higher quality than their African neighbors. Standards are already very high, so it is important that they differentiate themselves in terms of the produce they supply in order to give European buyers a reason to choose them as trading partners in the future.

Tanzania is still largely unknown in the U.K. and Continental EU fresh produce sector—no major negatives exist, but at the same time, no major positives either.

In terms of other market opportunities to add value and differentiate themselves, Tanzanians should be looking at the following, as a minimum:

- Retail-ready packaging/labeling/bar coding.
- Pre-preparation: trimming, slicing, etc.
- Organic production.
- Fair trade accreditation.
- New products (perhaps new ideas on preparation or growing the first organic or fair trade products for a certain variety).
- The use of more certification schemes for higher standards.

Using Neighboring Countries as Freight Links for Tanzanian Produce

Given the relative underdevelopment of cold chain infrastructure and the lack of regular air freight capacity from Tanzania direct to the U.K., it may be beneficial for Tanzanian exporters to transport produce via other African nations. Nairobi is the obvious choice of destination due to its relative proximity to Tanzania and sophisticated infrastructure.

If, on the basis of in-country analysis, transshipment of fresh vegetables is considered to be the best option, it is essential that supply chain links be reliable so that produce can leave the country swiftly, giving it the best chance of arriving in Europe in premium condition. The following is an example of one such operation.

Serengeti Fresh—Tanzania

Based in Arusha, Tanzania, Serengeti Fresh Ltd is an independent operation owned by Sunripe Farms, based in Nairobi. Serengeti has four GlobalGAP-certified units that supply a BRC-accredited (higher level) packhouse. The extra-fine and fine beans, mangetout, sugar snaps, baby leeks, passion fruit, and okra that Serengeti produces are transported to Sunripe in Kenya and then forwarded to Europe.

The 275-hectare site forms part of Sunripe's umbrella of farms and facilities that ensure it is able to guarantee a year-round supply of quality products. In total, the group exports 25 tons per week of prepared vegetables and 45 tons per week of regular vegetables.

3.9.4 KEY SUCCESS FACTORS

For Tanzania to develop a successful horticultural sector, the following needs to be put in place over a period of time:

SUCCESS FACTORS: PRIORITIES AND MEANS

Key Success Factors	Priority	Methods
Entrepreneurship. Strong technical and commercial management skills—able to meet the demands of leading EU retail operations, able to manage working capital, cash flows.	Most essential (starting point)	Create conditions to attract investment. Training, R&D, investment in EU standards systems, working capital management. Develop data collection and analysis capability. Attract a financial partner for working capital management who understands the business.
Links with key EU importers	Essential	Market research, visits, promotional activity, stakeholder workshop in Tanzania.
Well-developed physical infrastructure and excellent air freight links to key EU target markets	Essential	Attract investment, use best-practice models, establish strategic international and intermodal (truck, train, plane, and boat) partnerships.
Compliance with systems of production and management control such as GlobalGAP, BRC, ISO and HACCP	Essential	Work with EU organizations; learn from best-practice examples. Seek EU technical advice, e.g., from importers.
Dedicated farming operations specific to EU retail requirements in terms of product quality, timing of delivery, and the ability to meet set price parameters	Essential	Research specific client requirements and realistic supply lead times. Work through scenarios for costings as well as fluctuations in supply. Management training.
Effective use of cool storage and cool chain facilities once produce has been picked and packed throughout the rest of the supply chain	Essential	Research best-practice (Kenyan) examples. Seek investment and strategic partnerships.
Highly efficient and customer-focused export businesses	Important	Ensure sufficient knowledge transfer as to EU requirements and establish effective dialogue with importers.
Support from both trade sector and government agencies involved in export promotion and agricultural extension services, R&D, and education—all focused specifically on the development of export horticulture	Important	Focus on promotional activity, lobbying, awareness and capacity building with key contacts.
Ongoing commitment to reducing supply chain costs and adherence to good agricultural practice	Important	Monitor costs, both internal and globally sensitive ones such as those for fuel and pesticides. Plan for cost reduction.
Promotional support at key times of the year	Important	Plan trips with key international contacts, maintain active communication and open dialogue to establish key times of year that Tanzanian produce is needed.
A willingness to work proactively with suppliers in other parts of the world to increase continuity of supply, share key aspects of R&D and good agricultural practice, and reduce supply chain costs	Desirable	Develop contacts through international marketing activity, including trade shows, country visits, conferences, and research.
A willingness to focus on a small number of retail customers, maybe no more than 2–3, rather than looking to supply a wider spectrum of customers in wholesale and/or in foodservice	Desirable	Build up slowly from initial contacts. Stress quality, best practices, and consistency, as well as keeping an eye on competitiveness of prices.
Increasingly, the ability to develop category plans to build business on behalf of major retail customers over the next three years	Desirable	Commit to business plan and product portfolio without overstretching and over-diversifying.
National Development Plans and a culture of ongoing business and technical improvement across the business	Desirable	Ensure continuous communication and research to keep on top of market and consumer trends.

The EU market for exotic fruits and vegetables—including so-called baby vegetables—will continue to increase over the next five years (at approximately 4 percent annually, according to U.K. importers). The market is currently dominated by growers and exporters in Kenya, Central America, and other countries such as Thailand. Other East African exporters, such as those in Uganda, Zambia, and Zimbabwe, have often threatened to break into this “club” of successful exporters of off-season fruits and vegetables to the EU. Tanzania is in the same position.

The following SWOT analysis for the Tanzanian horticultural export sector summarizes the historical and current situation:

SWOT ANALYSIS—TANZANIAN HORTICULTURAL EXPORT SECTOR

Strengths	Weaknesses
Favorable climate, available water	Insufficient direct air freight links to support high export volumes
Strong agricultural tradition	Lack of packing facilities and domestic production of packaging, pesticides, etc.
Some experience of exporting to the U.K. and the Netherlands	Currently a fringe player in a highly competitive market
No particularly negative perceptions of Tanzanian produce in the EU market	No clear differentiating factor or strategic advantage at present
Possibilities to export via Kenya and other countries	Largely smallholder production—lack of expertise, not used to European style of management (especially the need for information management)
Opportunities	Threats
Growth in overall specialty vegetable consumption in the EU	Downward pressure on costs and further rationalization of the supply chain make it difficult for new suppliers to enter
Consumer trends point at further growth of exotic and baby vegetable consumption	Increasingly high standards raise barriers to entry, especially for small growers
Growth in fresh vegetable imports—especially from outside the EU	Demise of traditional wholesale markets—less opportunities for small volumes, Grade II and unaccredited produce
Growing niche markets in organics and fair trade	Consolidated markets and increasing power of supermarkets: exports tend to be in high volumes by big exporters. Growth in “sole sourcing”
Trend toward adding value through pre-preparing and packing	Buyers have already established long-term relationships with more sophisticated exporters

Key informants recommended that Tanzania needs to first focus on basic products to get the volume (e.g., 20 tons of fine beans per week), maybe taking low margins on this just to get into the market. It may be able to undersell the Kenyan producers because soils in Tanzania are still rich relative to the depleted soils in Kenya, which is a main reason for drops in Kenyan productivity from 5–8 tons per hectare to 3 tons per hectare. However, it is not just relative land productivity but total factor productivity which is of relevance here.

The importance attached by the specialized wholesalers to good management at the production and post-harvest level indicates the need for a mixed management structure (African-European). This could, for example, be accomplished by attracting experienced managers at various levels from Kenya and by bringing in expertise from an importer in the EU.

Various key informants indicated that the Gomba Estates Ltd set-up was the right one (heavy investment in technology, well-developed outgrower scheme, experienced management, network), except for its cash flow management (payments did not come in as expected; loan repayments related to a leveraged buy-out were huge; a credit provider who did not understand the industry). Working capital (most notably cash-flow) is the lifeblood of any company in the horticultural subsector (seeds, labor, gasoline, and so on, all need to be in place under tight time schedules). Therefore good access to working capital is essential for survival.

The largest market for the products that Tanzania would be interested in exporting to Europe is undoubtedly the major supermarket groups. For example, around 80 percent of vegetable imports in the U.K. go direct into the supermarkets. There are also some smaller markets, but there is no significant “middle market.” Between 70 and 85 percent of the lead importers’ business (mirroring the overall industry) is supermarkets, while 15–30 percent goes to greengrocers and wholesale/foodservices. The latter are not increasing as a group, but foodservice is growing at the cost of wholesale and specialized retail.

It is further recommended that Tanzania follow a multipronged strategy (multiple markets, multiple products), i.e., that it produce and market mainstream products (like fine beans) alongside higher-margin products (like baby vegetables, fair trade, organic, processed, and so on) to get to economic volumes (in terms of transportation in particular) and to reduce both market and production risks.

4. STRUCTURE OF KEY TARGET MARKETS

4.1 THE UNITED KINGDOM

4.1.1 OVERVIEW

The U.K. is one of Tanzania's leading trading partners and one of its largest foreign direct investors as well. U.K. companies have invested about £230m in Tanzania over the last 11 years, mainly in the agricultural and tourist sectors. Leading U.K. investors are CDC (Fund Management), BP (Energy), Standard Chartered (Banking), Barclays (Banking), Unilever (FMCGs), and Mott MacDonald (Infrastructure). U.K. exports to Tanzania were worth £71 million in 2005. Tanzanian exports to the U.K. were worth over £36 million in the same period.⁴⁸

The total U.K. vegetable market has been growing slowly but steadily for many years, slightly below the rate of inflation. Consumption has been relatively static, with any growth coming from emerging niche markets such as organic, fair trade and pre-prepared products. Vegetables represent around 15 percent of consumer spending on food. In 2004 the total market was 4.3 million tons and was worth around £2.2 billion at import value. The average market value of vegetables in the U.K. in 2004 was around £550 per ton.⁴⁹

The total fruit and vegetable market is the equivalent to some 7.6 billion tons per annum. In order to reach the government's target of everyone eating five portions of fruit and vegetables a day, the U.K. will need to consume more than an extra 1 billion ton. In 2005, apart from apples and potatoes, all fruit and vegetable categories saw growth as the 5-A-Day message gained momentum.⁵⁰

Despite the modest increases in overall vegetable market volumes, imports have risen significantly over the last 20 years, reaching over 1.7 billion tons in 2004. Imports now account for around 40 percent of the U.K. vegetable market, compared with around 25 percent 10 years ago. As previously indicated, in the absence of reliable data for some products, an estimate of the market for green beans, sugar snaps, snow peas, and baby vegetables is around 2.5 percent of the total vegetable market in the U.K.

This represents around 108,000 tons per year,⁵¹ with the vast majority being sold to consumers at major supermarket chains and most of the produce being imported from outside the EU.

⁴⁸ U.K. Foreign Commonwealth Office.

⁴⁹ Fresh Produce Consortium, *Re: Fresh Directory 2006*.

⁵⁰ Fresh Produce Consortium, *Re: Fresh Directory 2006*, p.32.

⁵¹ Based on DEFRA figures of 4.3 million tons for the overall vegetable market in 2005.

TABLE 14: ESTIMATED SIZE OF CURRENT MARKET FOR U.K. VEGETABLES BY VARIETY AND END MARKET (TONS)

	Green Beans	Sugar Snaps	Snow Peas	All Baby Vegetables	Total
Retail	36,450	15,390	13,770	15,390	81,000
Foodservice	12,150	5,130	4,590	5,130	27,000
Total	48,600	20,520	18,360	20,520	108,000

Source: Promar International based on published data, trade estimates and FPJ data

The main attraction for the suppliers in supplying U.K. supermarkets is not really the price. It is true that prices in the U.K. are the highest in Europe, but the standards are so high and rejections so common that this price advantage is nearly neutralized. Rather, the U.K. market should be targeted because of its reliability: it is the regularity of demand and stability of price there that attracts suppliers. This is less the case when supplying the mainland EU market. It is true that the EU market is easier to penetrate: if you are GlobalGAP-certified and price-competitive, you can become a player (new entrant). On the other hand, the mainland EU operates on a more ad hoc basis (prices there can really crash). In short, the U.K. is more demanding and more difficult to penetrate, but once you are “in,” the U.K. offers one of the most stable markets in the EU. Still, in the highly competitive U.K. environment, nothing can be taken for granted. For example, Bomfords, one of the largest fresh produce suppliers in the U.K., went in administration (receivership) in June 2007 (although it will likely be bought out and stay in business).

To break into the U.K. market, Tanzanian producers will have to bring a unique selling proposition (USP) to one or more of the five leading produce importers-distributors (specialized wholesalers). These importers are the gatekeepers to the supermarkets and play a dominant role in the produce supply chains for both the wholesale trade and the foodservices sector. They have already carefully built up a reliable Africa supply base over a period of years. These are long-term, trust-based partnerships (an importer may go for several years in a row without adding a new supplier). Therefore, for the importers to switch to (or add) another supplier, they must be given a good reason. The three main reasons (USP types) are: 1) a price advantage (5 percent lower or e.g., 10 cents/kg [GBP] less would be an attractive/significant enough price difference); 2) contributing to the AYR requirement of the supermarkets (i.e., address a current gap in the supply calendar; for example, address the April–May and October–November windows for mangetouts and sugar snaps, when supplies from Kenya are low); or 3) offering a unique product (e.g., a new item or a new value-added format, such as fair trade-certified vegetables, or Tenderstem broccoli).

Overall, these importers respond to maybe 1 out of 20 samples offered, and they will actually work with only 1 in 50 enquiring suppliers. On the other hand, if a supplier has such a USP, the importers are usually willing to work with the supplier to address other concerns, such as financing working capital or getting GlobalGAP certified (if issues can be resolved within a year or so). While all of the lead importers we interviewed indicated that GlobalGAP certification is a basic requirement, none considered it a major hurdle as long as there is committed management in place and the producer has a USP.

When asked about the most important criterion they apply when assessing potential produce suppliers, apart from having a USP, U.K. importers mentioned supply capacity. This refers to the supplier’s ability to deliver the right quality at the right time and in the right volume, according to an agreed-upon supply calendar. Most of the suppliers that fail, do so on the basis of giving false promises—they claim they can

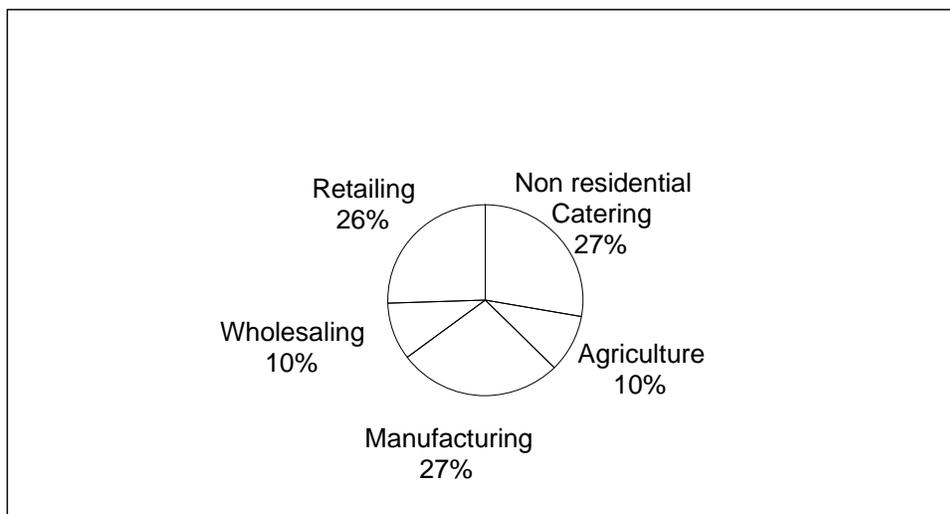
deliver what they cannot and when they cannot. Second-tier criteria include reliable technical information (traceability, shipment information, etc.); supply chain structures/freight links; accreditation/GlobalGAP; and having a good pricing structure. Also mentioned were packing facilities; a solid, long-term business plan; good, proactive management; having the right produce (for which demand is readily available); good communication; and the fundamental factors: cheap land, cheap labor, good access to capital, good climate, good water supply and irrigation.

One U.K. opportunity of particular note here is Whole Foods. This U.S. food retail chain opened its first store in the Kensington area of London in 2007. Incumbent retailer chains will not allow their fresh fruit and vegetable suppliers to also supply Whole Foods, a fact that may offer an opportunity for new specialized wholesalers and new exporters in developing countries.

4.1.2 THE U.K. SUPPLY CHAIN

Figure 7 below shows that the key areas of the U.K. supply chain in terms of gross value-added activity are in the retailing and food processing sectors—as would be expected, with activities such as primary production and wholesale distribution adding relatively low value.

FIGURE 7: GROSS VALUE ADDED OF THE U.K. AGRIFOOD SECTOR



DEFRA, *Food Statistics In Your Pocket*, May 2006

Retail Channels

In recent years, the supermarket industry has come to totally dominate the U.K. grocery market, with less and less food being sold through independent retailers, greengrocers, and traditional street markets.

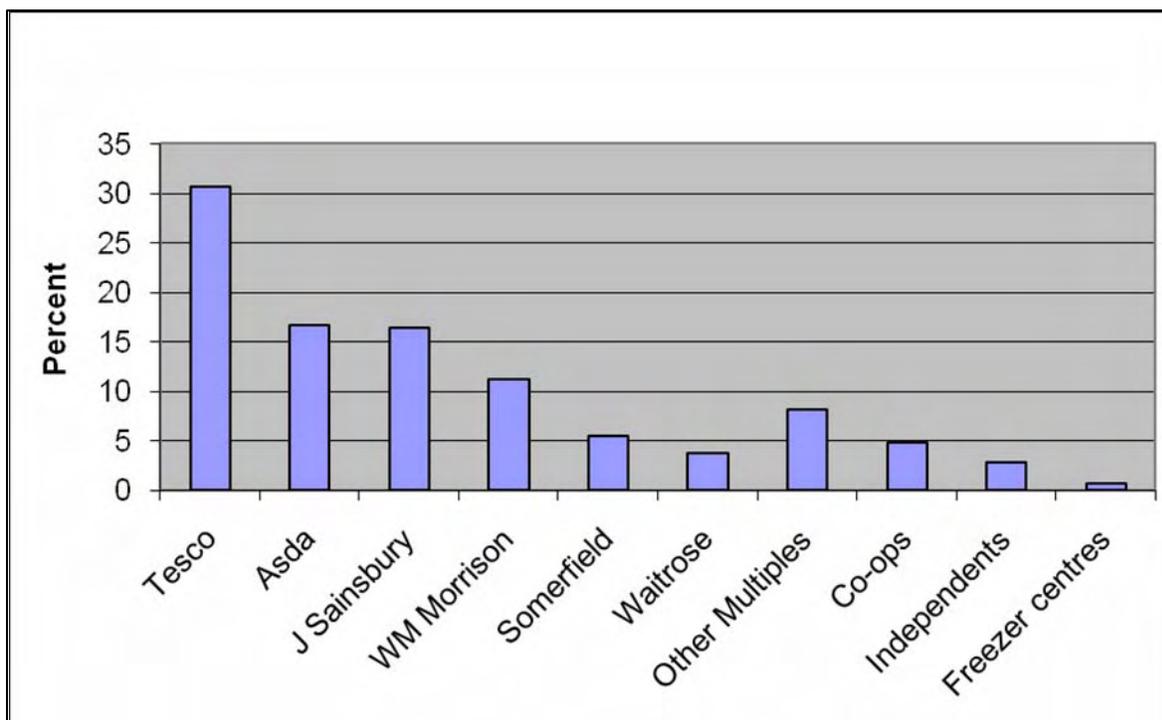
With convenience as a major driver of shopping habits in the U.K., leading supermarket groups (especially Tesco) have managed to gain significant market share by moving into both smaller convenience formats and larger hypermarkets and by diversifying into more nonfood areas. The Institute

TABLE 15: U.K. FRUIT AND VEGETABLE RETAIL SALES, 2005

	Volume ('000 tons)	Spend (£'000)
Multiples (chains)	4,635 (83.3%)	5,624,533 (84.2%)
Cooperatives	207 (3.7%)	243,807 (3.7%)
Independents	82 (1.5%)	83,209 (1.2%)
Farmshops (2003 figure)	35 (0.6%)	18,684 (0.27%)
Market stalls	170 (3.1%)	154,346 (2.3%)
Greengrocers	289 (5.2%)	280,029 (4.2%)
All others	144 (2.6%)	273,617 (4.1%)
Total	5,562	6,678,225

Source: TNS Worldpanel

of Grocery Distribution (IGD)⁵² believes that the U.K. grocery retail market will continue to grow at an average rate of 2.9 percent over the next five years. This will see an overall market worth £138.2 billion (at current prices) by 2010, with growth expected to come from both ends of the store portfolio spectrum (convenience and hypermarkets).

FIGURE 8: GROCERY MARKET SHARES TO JANUARY 2006 (NOT INCLUDING CONVENIENCE)

Source: TNS Superpanel—Grocers' Share of Trade, February 2006

⁵² A well-respected not-for-profit organization undertaking research and training in the U.K. food sector, with a membership comprising both leading food companies and processors and retailers.

With around 660 hypermarkets already in the U.K., IGD believes this segment will increase by almost a third in the next five years. The grocery convenience sector is also expected to continue growing strongly, being forecast to reach £33.9 billion (around US\$67 billion at current exchange rates) by 2011. In recent years, dominant players have emerged in the U.K. supermarket industry, with the biggest four multiples capturing around 75 percent of the market. Tesco has experienced the most significant growth and now holds over 30 percent of the grocery market alone.

Foodservice Channels

The U.K. consumer is eating away from home more and more, with almost 30 percent of all food expenditures going to the foodservice sector. Since high-value and baby vegetables must be aimed at the premium end of the market, viable target markets are restaurants and hotels, as quick-service outlets like sandwich shops, pubs, and other catering services would not consume significant volumes of such produce. The vegetables that they do order are likely to be frozen and sourced locally or from continental Europe.

TABLE 16: U.K. FOODSERVICE PURCHASES (£ MILLION)⁵³

	2003	2004	2005
Restaurants	1,447	1,501	1,537
Quick service	2,112	2,115	2,130
Pubs	1,212	1,229	1,243
Hotels	1,283	1,317	1,324
Leisure (e.g., theme parks)	573	585	595
Staff catering	968	980	978
Health care	622	643	647
Education	651	653	652
Services (e.g., the army)	165	169	172
Total	9,034	9,193	9,277

Source: Horizons for Success: www.horizonsforsuccess.com

Restaurants and hotels generally procure fresh produce from specialist catering wholesalers, and usually have produce delivered. Large foodservice chains will generally buy produce from the larger U.K. catering distributors such as Brakes, Woodward, and 3663, who stock frozen baby corn, baby carrots, green beans, snow peas and sugar snap peas. Smaller and higher-class restaurants and hotels buy fresh vegetables and may visit wholesale vegetable markets, such as New Covent Garden, Western International, and Spitalfields (all located in London), to buy fresh produce, although market traders are increasingly having to deliver their goods to maintain demand.

4.1.3 HIGH-VALUE AND BABY VEGETABLES

Baby vegetables have become an established niche sector of the U.K. vegetable market. Having been introduced in the late 1980s in top-quality restaurants, baby vegetables have moved from being a decorative, trendy item to taking up increasing shelf space in major supermarket multiples. Currently the

⁵³ Constant at 2005 prices.

main varieties available in supermarkets are baby corn, carrots, zucchini, leeks, broccoli, and cauliflower. Other baby vegetables that are less well established and currently more suited to restaurant supply and niche channels include certain cabbage varieties, spinach, turnips, fennel, pak choi (bok choi), eggplants, beets, butternut squash, artichokes, cucumbers, and romanesco broccoli.

Some U.K. suppliers have taken the trend further by supplying “mini” vegetables, which fit within even smaller size bands than baby vegetables and are aimed at the foodservice sector. Momentum of demand for these products will be fueled largely by the burgeoning market for restaurants, TV chefs, and food writers in the U.K. that have popularized less traditional products in recent years. If this momentum and popularity is substantial enough, baby products will find their way onto supermarket shelves in coming months.

With the increase in eating out in the U.K. and the tendency for restaurants to innovate and use new, fancy foods, the restaurant sector may be a growth area, although the higher class restaurants that serve fresh vegetables are also more likely to want to source produce locally. The supermarket sector is a far bigger prize. The valuable and growing market of young people and single-person households with high disposable income should be a key target market for exporters of exotic vegetables, capitalizing on the evolution of people’s lifestyles in Europe. Introducing new products can take some time, however, and usually demand is driven higher in the winter months, when restaurants revamp their menus.

Pack size for baby vegetables, snow peas, and sugar snap peas are usually between 150–300 g, and average retail price is £5.90 per kg, or around £1.20 per pack. Different baby vegetables are quite often packaged and sold together (for example, baby corn, baby carrots, and snow peas). Combination packs are more expensive by weight, an average of £6.34 per kg from our sample.

TABLE 17: EXOTIC VEGETABLE PRICES AT SELECTED U.K. SUPERMARKETS, OCTOBER 2006

	Carrots	Corn	Leeks	Green Beans	Snow Peas	Sugar Snap Peas	C’flower	Broccoli	Z’chini
Tesco									
£/kg	4.64	5.96	5.6	3.6	4.64	4.64	0.62/ea	0.62/ea	6.45
pack size (g)	300	250	175	300	300	300	4	4	200
Asda									
£/kg				3.6		6.13	0.64/ea	6.4	
Pack size (g)				200		160	2	200	
J Sainsbury									
£/kg	3.48	5.96	5.66	3.6	6.45	6.45	0.74/ea	0.74/ea	
pack size (g)	400	250	175	250	200	200	2	2	
Waitrose									
£/kg	6.45	6.36	7.45	6.6	7.93	7.93	7.11	7.11	7.95
pack size (g)	200	250	200	150	150	150	350	350	200

Source: Promar International, based on trade and desk research

Based primarily in the South of England, Waitrose is positioned as a premium retailer. It sells only the highest-quality products at slightly higher prices, as can be seen in the above table.

Baby vegetables are far more expensive than their full-sized counterparts by weight, as can be seen in Table 18 below. The higher prices can be charged because they are sweeter, easier to prepare, and often trimmed and in higher-value packaging.

TABLE 18: COMPARISON OF BABY AND STANDARD VEGETABLES, OCTOBER 2006

Tesco plc			
	Carrots	Leeks	Zucchini
£/kg Baby Loose	0.69	1.98	1.64
£/kg Adult Packaged	4.64	5.60	6.45
Increase	+572%	+183%	+293%

Source: Promar International, based on desk research

4.1.4 U.K. MARKET SUPPLIERS⁵⁴

The following countries are recognized as being involved in the supply of selected vegetables to the U.K. market:

Product	AYR Suppliers	Seasonal Suppliers
Baby corn	Guatemala, Kenya, South Africa, Thailand, Swaziland, Zambia, Zimbabwe	Gambia, Sri Lanka, Nigeria, Uganda
Other baby vegetables	France, Costa Rica, Kenya (zucchini, carrots, snow peas, onions, sugar snap peas), Swaziland, Turkey, Gambia	Germany, Netherlands, Spain, Portugal, South Africa, Zambia
Snow peas (and mangetout)	Guatemala, Kenya, South Africa	Egypt (rarely), India, Ireland, Jordan, Morocco, Nigeria, Pakistan (sporadically), Spain, Tanzania (sporadically), Uganda (trials), Zambia, Zimbabwe
Sugar snap peas	Guatemala, Kenya	Jordan, Morocco, Nigeria, South Africa, Uganda, Zambia, Zimbabwe
Pattypan squash		Belgium, Chile, France, Italy, Guatemala, Kenya, South Africa
Green beans	France, Greece, Kenya	Bangladesh, Belgium, Cyprus, Guatemala, India, Ireland, Morocco, Netherlands, Nigeria, Uganda

4.1.5 U.K. MARKET POTENTIAL FOR TANZANIAN EXPORTS

The U.K. should be a key target market for Tanzanian exports of high-value vegetables. The historical links in terms of trade and culture are relatively strong in the U.K. The market for fresh exotic vegetables is significant and growing. Also, Tanzania's closest rivals—Zambia, Zimbabwe, and Kenya—have all had their biggest success with high-value vegetables in the U.K. market. Tanzanian exports to the U.K. to

⁵⁴ Fresh Produce Consortium, *RE: Fresh Directory 2006*.

date have tended to focus on the U.K. market, and there is an opportunity to at least build on some of this success.

In order to supply the U.K. market, it will be necessary to grow significant volumes and to the standard required by the major supermarket groups. Not only do the supermarkets represent the largest market for these products by far, but other channels are more fragmented, with more links in the supply chain; they are less suited to fresh exotic vegetables, less dependable, and increasingly impose the same standards for quality and accreditation as the supermarkets.

4.2 FRANCE

France is the third largest importer of fresh vegetables in the EU after Germany and the U.K. Unlike Germany, however, France imports a relatively high proportion of its vegetables from outside the EU, with more than a quarter coming from developing countries (notably, 16 percent of its vegetable imports come from Morocco).⁵⁵ Compared to other EU countries, it is a more developed import market for higher-value products such as zucchini, eggplants, artichokes, and truffles. Due to historical and language ties, any French trade with African suppliers tends to be with those based in the north and west of the continent, although France did import over 23,000 tons of horticultural produce from Kenya in 2005—15 percent of the total Kenyan horticultural produce exported.⁵⁶

France has a sophisticated distribution system for fresh produce, with extensive channels linking domestic farmers, retailers, and foodservice companies through to the end consumers. Imports supplement considerable volumes of domestic production of a wide range of fruits and vegetables. French consumers are known for demanding fresh, good-quality produce and knowing how to recognize it. Imports from Africa via sea freight generally come through the southern port of Marseilles; air-freighted produce travels either direct to Paris or via Schipol Airport in Amsterdam (produce is then moved by truck to the French market). Many imports go through the largest fresh food wholesale market in the world, Rungis, which is situated 12km south of Paris.

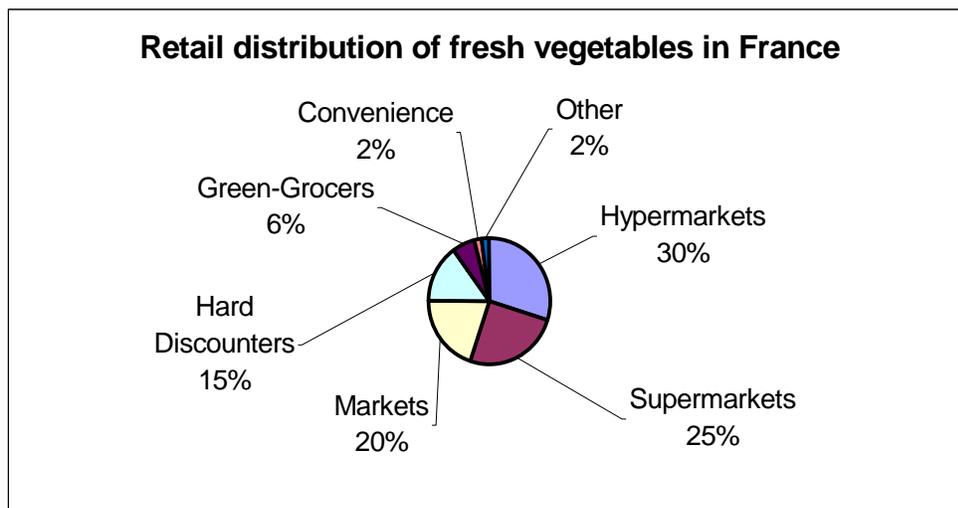
At a retail level, hypermarkets play an important part in the sale of groceries; almost 33 percent of French consumption is purchased at these stores. The growth of hypermarkets and hard discounters such as Lidl and Aldi are taking market share from traditional market and smaller supermarkets. However, traditional street markets, which generally procure vegetables from larger wholesale markets, still have a larger overall proportion of the food market in France (at some 20 percent) than in many EU countries, especially the U.K.

Figures 9 and 10 show the overall breakdown of the retail market in France by the main channels of distribution, and then the respective sales of the major supermarket chains.

⁵⁵ CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*.

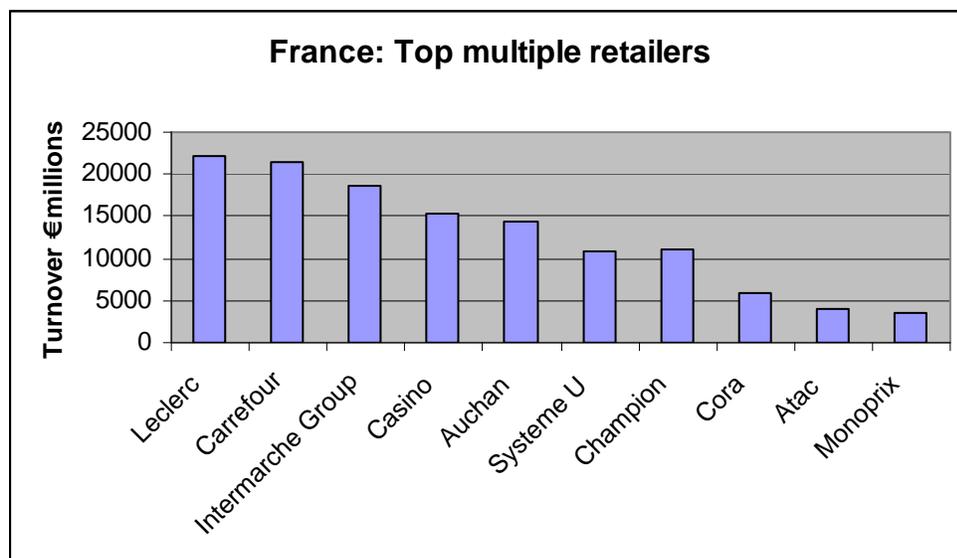
⁵⁶ HCDA, *Export Destination Volumes for 2005*.

FIGURE 9: RETAIL DISTRIBUTION OF FRESH VEGETABLES IN FRANCE



Source: CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*

FIGURE 10: FRANCE: TOP MULTIPLE RETAILERS



Source: AC Nielsen 2003

4.2.1 BABY VEGETABLES

France has a strong tradition of both fruit and vegetable production. Baby vegetables tend to be produced by small individual producers in France; they are a relatively new commercial niche that has proven a good revenue generator for domestic smallholders. Harvesting is only done by hand, and producers add value by preparing, washing, and packing them in trays on the farm. The trays are then typically wrapped in cling film at the packing station. Since most producers work to order, they only harvest and pack when they have an order, which means that lead times are often short.

In France, only baby carrots, cauliflower, turnips, and leeks are produced year-round. Other baby vegetables such as artichokes, beets, cabbages, broccoli, zucchini, eggplants, corn, fennel, peppers,

pattypan squash, and pear-shaped tomatoes are seasonal. If demand for the latter is high enough, producers may require import partnerships in the off-season.

The majority of baby vegetables produced in France are cultivated in the Brittany region. There, production and commercialization is overseen by the Cerafel (Comité Economique Régional Agricole Fruits et Légumes), created in 1964 from the merger of several cooperatives. Today, the Cerafel “controls” 100 percent of the production of fruit and vegetables in Brittany. In France, there are seven other regional committees, like the Cerafel, representing their own production at the national and European level.

Prince de Bretagne (www.prince-de-bretagne.com) is a leading producer of branded fruit and vegetables in Europe. It produces a wide range of branded baby vegetables that it supplies to mainland European countries and the U.K., including cabbage, cauliflower, carrots, turnips, beets, artichokes, zucchini, pear-shaped tomatoes, peppers, leeks, and fennel. Some 12 producers cultivate these branded baby vegetables, each specializing in one or two of them. HotGame is another cooperative located in northwest Brittany that specializes in baby vegetables. HotGame claims to have invented baby vegetables in the early 1980s and has prestigious customers, such as the gourmet food and specialty company Fauchon, the Méridien hotel in Hong Kong, and the Cannes Film Festival.

4.2.2 OPPORTUNITIES FOR TANZANIA

In France, it is felt that a good many consumers still feel very much connected to farming, in a way that has almost disappeared in the U.K., for example. As such, they are much more used to French-grown fruit and vegetables, and indeed, that is what they prefer to purchase. Reflecting this, multiple retailers tend to purchase fruit and vegetables of French origin in season and to import them only out of season. This means that opportunities for Tanzanian exotic vegetable exports mainly lie with vegetables not cultivated in France, such as baby corn, and during the period when French vegetables are out of season.

TABLE 19: TYPICAL EXOTIC VEGETABLE PRICES AT FRENCH SUPERMARKETS

Product	€/kg	Pack size (g)	Brand	Origin
Carrefour				
Green beans	13.60	250	Mandar	Kenya
Green beans	12.00	500	Mandar	Kenya
Snow peas/mangetout	22.40	250	Mandar	Kenya
Baby zucchini (round)	25.00	220	Mandar	South Africa
Baby zucchini (long)	22.00	220	Mandar	South Africa
Baby corn	25.83	125	Mandar	Thailand
Baby carrots	33.29	220	Mandar	France
Baby eggplant	46.60	150	Mandar	South Africa
Baby leeks	5.98	50	Mandar	France
Baby turnip	23.75	400	Mandar	France
Baby cucumber	8.33	3 units	Mandar	Israel
Baby fennel	24.97	300	Mandar	France
Intermarché				
Green beans	2.19	Loose	none	France

Source: Promar International, based on trade and desk research

As in the U.K., the most viable channel for French imports of fresh vegetables from Tanzania will be supermarkets and hypermarkets—not price-driven hard-discount supermarkets. They require relatively

large volumes and are not as tied to seasonality of vegetables, as they aim to serve the modern consumer with produce year round.

Smaller retailers and the more traditional street markets in France are more concerned with domestic production and supporting the French agrifood chain, so will almost certainly be less receptive to Tanzanian produce per se. Seasonality is seen as a strength to local markets. French consumers who shop at markets like to buy what is locally available at a given point in the year, so AYR supply of produce is far less relevant here than in supermarkets.

4.3 THE NETHERLANDS

As in the U.K., there are five big specialized wholesalers who represent 100 percent of supermarket supplies. Supermarkets represent 70 percent of these wholesalers' sales. The other 30 percent is regionally exported to Belgium, Scandinavia, Germany, and so in. These five leading firms get around 70 percent of their goods directly from farms (domestic and imported) and 30 percent from smaller Dutch wholesalers, who rely 100 percent on imported produce. However, these wholesalers, for the greater part, do not import directly, but rather get their produce through small importers or import agents who get the produce directly from farms or from exporters.

The Netherlands is the second largest vegetable exporter in the EU (behind Spain), but it relies heavily on its thriving re-export industry. This reinforces its position as a potential key target market for Tanzanian exports, as the Netherlands is often a gateway to other European markets, such as Germany, Scandinavia, and Russia. Re-exports and transit trade have grown significantly across Europe after the creation and subsequent enlargement of the EU and Eurozone, which have removed barriers to international trade and logistics.

After the U.K., the Netherlands is the second largest market for Tanzanian vegetable exporters. This probably stems largely from the availability of air freight connections to the Netherlands from Tanzania and the Netherlands' role as a key re-export center, rather than Tanzanians targeting the Netherlands market per se. The key aspect of the Netherlands market for fresh produce is its re-export industry, and this provides significant capacity outside the demand from domestic Dutch retail and wholesale channels. The Netherlands is also the largest single re-export market for Kenyan horticultural products, given the huge Dutch trade in cut flowers (domestic and re-export), as well as a significant re-export market for Kenyan fruits and vegetables.

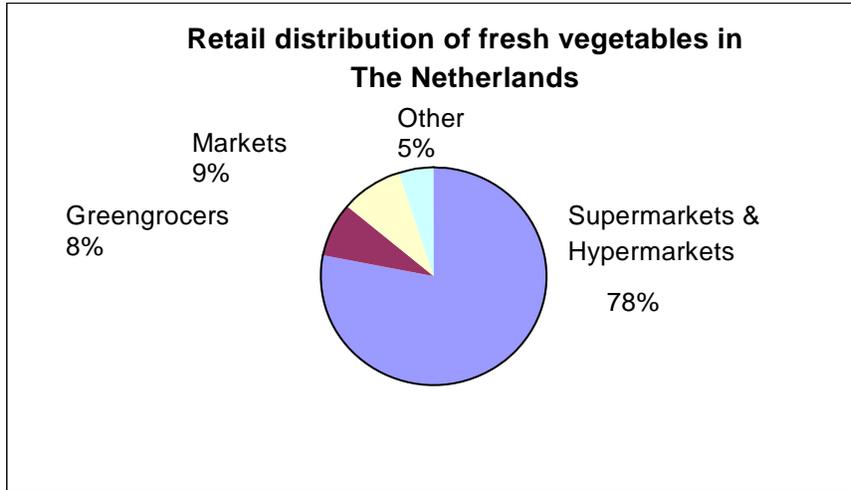
Imports and associated logistics in the Netherlands are strongly concentrated in and around Rotterdam. The Greenery is the result of the merger of a number of leading Dutch trading companies and has become a huge centralized, coordinated company supplying fruit and vegetables to Holland and other EU countries. Other import companies, such as FTK, Exotimex, and Bud Exotics, are also heavily involved in the import of fruits and vegetables from third-country suppliers such as Kenya, Israel, South Africa, Egypt, and those based in the Caribbean and Central and South America.

As in much of Europe, one of the major drivers of change in food consumption in the Netherlands is the trend toward convenience and time-saving in meal preparation, fueling demand for prepacked and semi-prepared vegetables.⁵⁷ Prepacked vegetables accounted for over 50 percent of total vegetable sales.

⁵⁷ Netherlands Commodity Board for Horticulture.

The tendency towards quick and easy-to-prepare vegetables is a strong indicator that baby vegetables could be a growth area in the Netherlands. Kenya is already one of the Netherlands' key suppliers of green beans, which rank as the eighth most popular vegetable among Dutch consumers.

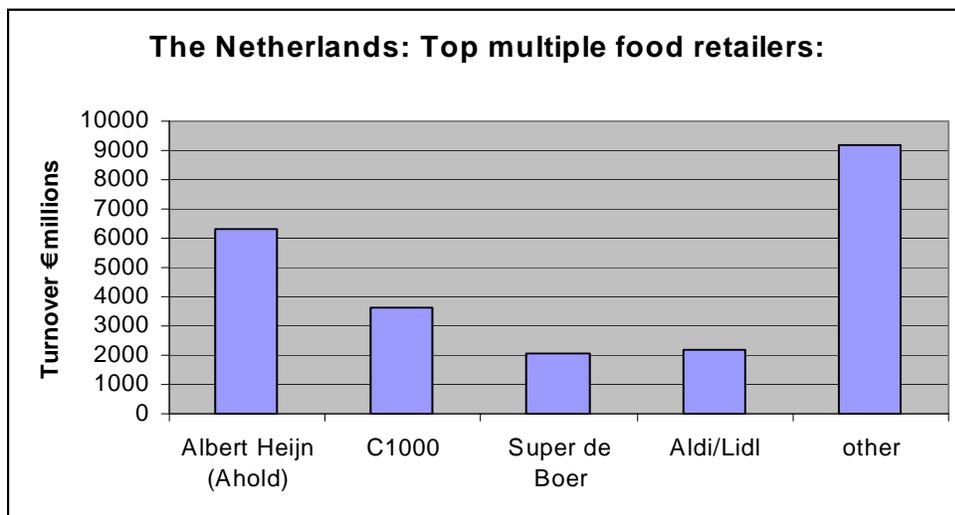
FIGURE 11: RETAIL DISTRIBUTION OF FRESH VEGETABLES IN THE NETHERLANDS



Source: CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*

As in most other major EU markets, supermarkets in the Netherlands have taken significant market share from greengrocers and more traditional street markets since the early 1990s, since consumers have tended to move toward one-stop shopping for their grocery needs. The major retailers account for an overall share of the market equivalent to some 78 percent—still not quite so consolidated as is in the U.K.

FIGURE 12: THE NETHERLANDS: TOP MULTIPLE FOOD RETAILERS



Source: Information resources Inc, 2005

Establishing and maintaining contacts and relationships with Netherlands-based importers, wholesalers, and retailers will be important for any Tanzanian export effort. As the market for high exotic and baby vegetables develops all across Europe, other EU markets will always look to the Netherlands to supply these growing markets; this, in turn, will benefit their established suppliers.

In summary, there are three main reasons for Tanzania's vegetable export strategy to focus on the Dutch market: 1) existing air freight connections (daily flights from Kenya Airways to Schiphol); 2) the link with the flower industry (which needs the heavier legumes to balance out the planes and is better developed in Tanzania than the vegetable subsector); 3) a market that is easier to enter than U.K. and is the main throughput market for Germany, Scandinavia, and other European markets. Tanzanians can use the Dutch market to build volume and a reliable supply infrastructure: these would provide the basis on which to build export to more demanding (and rewarding) markets, such as the U.K., as well as secondary markets such as Dubai or South Africa.

4.4 GERMANY

Despite the fact that Germany is the leading market for the import of fresh fruit and vegetables, it actually imports relatively little on a direct basis from outside the European Union.⁵⁸ Only 7 percent of the total value of Germany's imported vegetables comes directly from outside the EU, and only 1 percent comes from developing countries.⁵⁹ No doubt developing countries are the original source of a portion of the vegetables Germany imports from its EU neighbors, but the nature of the re-export industry in Europe makes it very difficult to estimate how much of the produce Germany imports is from re-exports and where those re-exports originally came from.

More important, however, is that consumption in Germany still centers on the traditional products grown in the EU, such as tomatoes, capsicum, cucumbers, lettuce, and carrots. Though baby corn is a popular exotic vegetable and often added to salads in Germany, the vast majority of the supply is currently imported at very competitive prices from Thailand. Given these basic factors, the market for high-value specialty products imported from Tanzania is still relatively limited at this stage of development. Also, as in France, German consumers tend to be more nationalistic when it comes to purchasing food, mainly due to quality and safety concerns, but also to support national production. This is especially true for organic foods, which are not just viewed as safer and healthier, but also as a means of supporting domestic farmers. Germany's organic food industry is the largest in Europe and is currently mainly served by domestic production.

For sea-freighted fresh produce imports, Hamburg is a major hub into Germany; for air-freighted produce, as stated earlier, the facility at Frankfurt Airport is commonly used. However, Germany also imports (via road haulers) much produce that has entered the EU at Antwerp in Belgium or Rotterdam in the Netherlands.

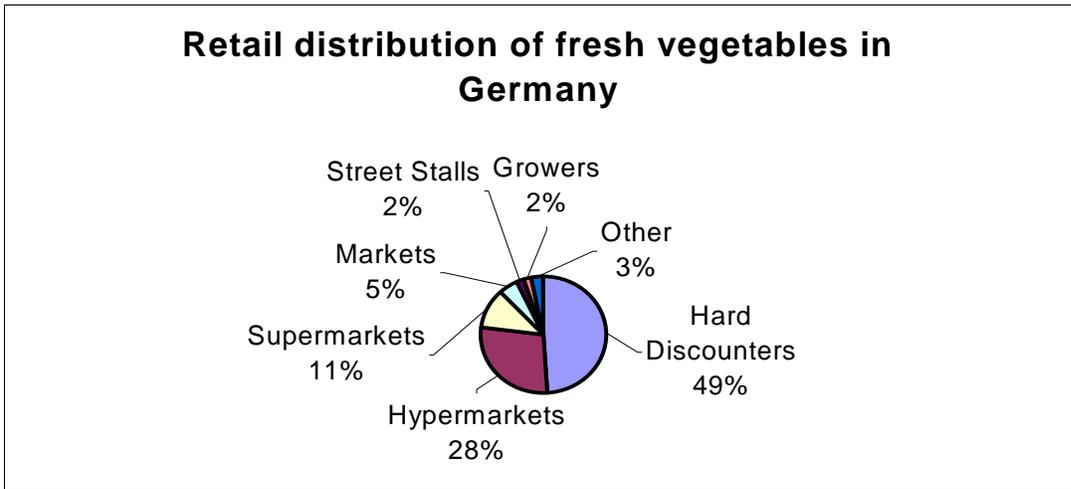
Figure 13 below gives an indication of how fresh produce in Germany is distributed through the main channels and routes to market. As in many other European markets, significant consolidation has left just a handful of major retailers with a large share of the overall market. Hard-discount stores have become extremely popular in recent years, accounting for nearly 50 percent of the market share for fresh

⁵⁸ It is estimated that up to 80 percent of all German imports of fresh produce are sourced via importers and reexporters based in the Netherlands.

⁵⁹ CBI, EU Market Survey Fresh Fruit and Vegetables, 2005.

vegetable sales. Hypermarkets also have a large share of the market, accounting for more than 25 percent of fresh vegetables sold at the retail level in Germany. Wholesalers grocers still play a relatively important role in the fresh produce supply chain. They have an efficient structure and full-scale infrastructure for importing, storing, and distributing goods, and they place orders with exporters daily.

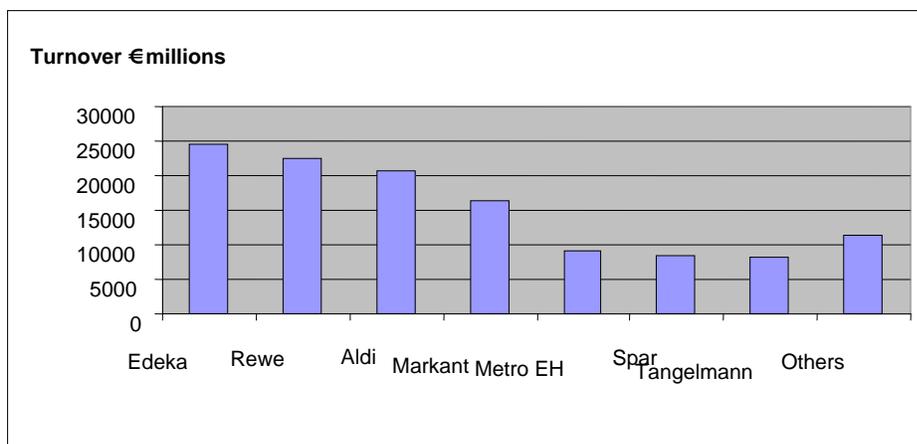
FIGURE 13: RETAIL DISTRIBUTION OF FRESH VEGETABLES IN GERMANY



Source: CBI, *EU Market Survey 2005: Fresh Fruit and Vegetables*

Figure 14 gives an indication of the respective sales of the major German supermarket chains. The German market has historically been dominated by the discount chains, as typified by Aldi and Lidl. For the German discount chains, the focus is very much on price; the demand for a range of added-value products and services, as found in the U.K. and, to a lesser extent, in the Netherlands, is strictly limited. The huge emphasis that the German market puts on price would make it a challenging starting point for any Tanzanian effort to move more exports into the EU market.

FIGURE 14: GERMANY: TOP FOOD RETAILERS



Source: AC Nielsen, 2005

Given Germany's physical proximity to some of the more strategically important new EU member states, such as Poland, Hungary, and the Czech Republic, there is also significant room for the development of trading relationships between German produce distributors and new customers in the Eastern European markets. However, this is likely to focus on traditional German and EU products rather than exotic African-grown vegetables..

Faced with the fact that Germany currently imports very little produce from outside of Europe, it seems that targeting the German market as an export destination—at this stage—makes relatively little sense. Tanzanian growers and packers will probably do better to develop relationships within the Netherlands market, which may offer more reliable access to German consumers through re-exports of Tanzanian produce. This is confirmed by looking at the Kenyan example: it shows very small volumes of horticultural exports going direct to Germany compared to the U.K., France, and the Netherlands.

4.5 THE U.K. MARKET VERSUS OTHER MAJOR EU TARGET MARKETS

The U.K. is a key strategic target for the export of Tanzanian vegetables, with the Netherlands also being a key target destination due to the significance of its re-export market. Tanzania has had at least some experience in the U.K. market to date and this provides an opportunity to build further business from in the future; in all other EU markets, Tanzania's track record is just about nil, and in effect it is starting from scratch.

The attraction of the U.K. market is owing to the following:

- The market is concentrated at the retail point of sale; once established, most suppliers are able to build meaningful business with the leading retailers.
- The foodservice market is still growing and consolidating.
- U.K. quality standards are high—but can be used to leverage into other markets.
- Demand for exotic fruits and vegetables, as well as baby vegetables, is predicted to keep growing.
- Tanzania has some (albeit limited) experience in the U.K. market to date.
- The physical distribution network is well developed—a number of airports are equipped to handle fresh produce imports, especially at London's Heathrow⁶⁰ and Gatwick facilities.
- The U.K. has a reputation of importing from all around the world. Over a period of time, a number of countries have started from a small base, but have gone on to build a significant business on the back of the U.K. market. Besides the classic case of Kenya, examples include Chile, Turkey, Peru, and Zambia.
- The U.K. has less of an interest in protecting its local vegetable sector from external competition than may other countries, such as France and Germany.

⁶⁰ British Airways have an impressive facility based at Heathrow dedicated to the import of fresh produce from around the world on a daily basis.

- Many of the U.K.'s major cities have an ethnically diverse population, which have provided an initial demand base for many imported fresh produce items. But at the same time, the indigenous U.K. consumer also has shown a strong trend towards trying new and exotic produce and other forms of fresh and processed foods. The relative lack of a strong food culture in the U.K. (as compared to other EU markets, including such places as France and Southern Europe) is often given as one of the reasons for this relative “openness” among consumers towards experimenting with new foods—and the willingness of retailers to look to source these products.

As noted earlier, France is a slightly more difficult market to enter, due to its historical ties with North African countries such as Morocco and its tendency to favor home-grown, seasonal produce. Germany is a less developed market for exotic vegetables than either France or the U.K., and almost all of its vegetable imports come from other EU countries. The Netherlands is often seen as a “gateway” to other valuable Northern European markets, such as Germany and Scandinavian countries, as well as having reasonably high domestic consumption. All these trends are reflected in the import statistics for green beans shown in Table 20 below.

TABLE 20: SELECTED EU IMPORTS OF GREEN BEANS (TONS), 2004

U.K.								
Egypt	Kenya	Morocco	Zambia	Zimbabwe	Other Extra-EU	Total Extra-EU	Total EU	Total
3,077	19,188	3,036	1,464	1,707	1,609	27,004	2,834	29,838
Netherlands								
Egypt	Kenya	Morocco	Senegal	Dominican Republic	Other Extra-EU	Total Extra-EU	Total EU	Total
6,600	3,897	5,496	2,251	387	522	12,553	19,003	31,556
France								
Burkina Faso	Egypt	Kenya	Morocco	Senegal	Other Extra-EU	Total Extra-EU	Total EU	Total
778	2,113	4,060	38,175	2,591	310	47,249	14,299	61,548
Germany								
Dominican Republic	Egypt	Kenya	Morocco	Thailand	Other Extra-EU	Total Extra-EU	Total EU	Total
83	3,339	676	52	34	33	4,134	15,661	19,795

Source: FAOStat

Table 21 below gives a summary of the overall potential for Tanzanian exports of high-value specialty and baby vegetables to a number of potential EU markets via a variety of channels.

TABLE 21: POTENTIAL OF EXPORT MARKETS FOR TANZANIAN VEGETABLES

	Multiples (via major importers)	Foodservice (via catering wholesalers)	Other retail (via smaller wholesalers)	Re-export business (via importers)	Overall
U.K.	High	Medium	Medium	Low	Medium
NL	Medium	Medium	Medium	High	Medium
FRA	Medium	Medium	Low	Low	Low
GER	Low	Low	Low	Low	Low

Source: Promar International analysis of trade statistics and desk research

5. OTHER TARGET MARKETS

Given historical trade arrangements and current import requirements, it is likely that Europe provides the vast majority of opportunities for Tanzanian vegetable exports. It is true that there are other potential export markets (such as the Middle East, other African markets, and North America) to be explored, but the level of market demand they offer is often very limited. This needs to be taken into account if a major export development initiative is to be carried out in Tanzania, particularly in view of the level of investment required to develop a modern and efficient export production and marketing sector.

As in the EU market, any export development effort to these markets will pit the Tanzanian horticultural sector against its counterpart in Kenya. This has achieved the position of “lead supplier” in these markets, as it has done in the EU. As the most advanced exporter of exotic vegetables in East Africa by far, Kenya has explored possible channels outside the main EU market and already exploited much of the export market potential that might exist in these alternative markets.

Table 22 below shows the volume of Kenyan exports to these alternative markets. As can be seen, in most cases the volumes involved are relatively small and are composed of more mainstream horticultural products (such as mangoes and green beans) rather than more exotic or baby vegetables. Whether these alternative markets represent a meaningful opportunity for the Tanzanian horticultural export sector is something to be decided in Tanzania, of course—but in terms of the sort of thought process that might be required to make this decision, it should be borne in mind that:

- The Kenyans are experts in this field. If there were a significant opportunity in these markets, it is likely that the Kenyans would have already developed significant business in them, and this is not the case to date.
- The overall size of these markets is relatively small.
- The Kenyans have (we expect) already captured the bulk of the business in them.
- Other competition will come from countries such as India and Pakistan. Many of the leading importers, especially those based in the Middle East, are staffed by expatriate Indians and Pakistanis. While this is not an insurmountable barrier, it does present the Asian exporters with some degree of advantage.
- Quality standards for supermarkets in many of these countries—in the Middle East and in South Africa, for example—are not to be underestimated. While they are not as high as might be found among the leading U.K. retailers, they should not be regarded as markets where second-grade produce can easily find a customer.
- The wholesale markets of the Middle East are often run on an auction system and /or an open commission basis, and so represent of a risk for even the most experienced horticultural exporters. They are probably not well suited for fledgling export projects for Tanzania at this stage.

Only 1 percent of Kenyan horticultural exports are to other African countries, with about 65 percent of this being exported to South Africa for all products. An additional 3.2 percent of Kenyan exports go to “Asia,” with around 65 percent of these exports split between Dubai and the rest of the UAE. Only 0.3 percent of these export volumes go to North America.

TABLE 22: KENYAN EXPORTS BY VOLUME AND DESTINATION, 2005

Market	Volume Exported (tons)	Share of Kenyan Exports
U.K., France, Germany, Netherlands	148,197.25	90.4%
Rest of Europe	8,261.97	5.0%
UAE	1,937.59	1.2%
Dubai	1,718.22	1.0%
Rest of Asia	1,679.92	1.0%
South Africa	1,149.12	0.7%
Rest of Africa	533.77	0.3%
North America	454.98	0.3%
Total	163,932.82	100%

Source: HCDA website, 2005 export destinations

Given the very small share of Kenyan exports that are destined for other non-EU markets, this study will cover import issues and market opportunities in extra-EU markets relatively briefly, focusing only on the Middle East and South Africa.

5.2 THE MIDDLE EAST

Given that the Middle East is physically closer to East Africa and the market is still emerging, compared to the more mature markets of the EU, the Middle East region could be seen as a potential target market for Tanzanian exports.

The key target markets for the Middle East region would be as follows:

SAUDI ARABIA

Imports are typically made via Jeddah and redistributed to the rest of the country via refrigerated trucks. Saudi Arabia is the largest single market in the Middle East. It is, however, a very conservative market compared to the UAE, and of course at the moment it is subject to ongoing incidents of terrorism. Markets are quite often closed, and despite a large population of migrant workers who might normally be interested in the type of horticultural products Tanzania can offer, their main preoccupation is often to save and send money home rather than spend on high-value consumer products, including food. At the other end of the market spectrum is a highly affluent Saudi population caught between the attractions of Western-style foods and the urge to protect the best traditions of Arab religious, social, and political culture.

THE UAE

Dubai acts as a major import center for the Gulf region. It re-exports fresh produce to the rest of the Gulf in the same way that the produce sector based in Rotterdam in the Netherlands does for the rest of the EU. The commercial environment is strong, and the local economy is highly receptive to new ideas in terms of products—both goods and services—as it looks to diversify away from dependence on the oil sector and to move strongly into areas such as tourism, leisure, and financial services.

However, the markets are much smaller (only around 3.5 million people live in the UAE), more fragmented than in Europe, and culturally more difficult to deal with. The operation of import systems in

most Middle Eastern markets is still less than transparent, which makes it difficult for new exporters to enter the market with much certainty. Market information of all sorts is also much more difficult to obtain than compared to the EU.

However, due to limited water resources and unsuitable soil conditions, the Middle East does import around 90 percent of its food needs. The UAE has a particularly large share of total food imports due to its large expatriate population and, especially in Dubai, with a strong demand for a wide range of fresh produce for consumption and re-export. Indeed, growing expatriate and tourist populations are increasing food requirements in the region.⁶¹ Moreover, the Middle East will have lower barriers to entry for Tanzanian exporters, as SPS requirements are not quite as stringent as in the key EU markets. However, it should not be assumed that this means the UAE can be regarded as a “soft route to market.”

In the Middle East, vegetable produce tends to be sourced from nearby countries like Jordan and, to a lesser extent, Turkey. Volumes currently coming from East Africa are not very large. Kenya is the preferred source of supply for a wide range of fruits and vegetables, but there is also trade for selected items from Egypt. Egypt will have significant advantages due to its highly developed export industry for products like green beans, its Arabic culture, and its status as the geographic link between Africa and the Middle East. In addition, India and Pakistan are both established in the Middle East markets as sources for fresh products such as mangoes as well as commodities such as rice, sesame seeds, and spices.

In the last 10 years, hypermarkets and shopping centers have taken off in the Middle East, with Carrefour, Géant, and Tesco operating across the region. Locally, the UAE-based EMKE Group now operates 18 hypermarkets nationwide.⁶² Though small, the six countries of the Gulf Co-Operation Council—Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, and the UAE—provide the biggest growth opportunities in the retail sector, as they are the most affluent and have had significant increases in population over recent years. Recent hikes in oil price have produced a cash-rich population in these countries.

Tables 23 and 24 give an indication of the volume of trade for green beans and peas into Saudi Arabia—the biggest single market in the region, with an estimated population of some 20 million. (Green beans and peas have the biggest sales volume of all the vegetables reviewed for this study.) Tables 25 and 26 give the same sort of data for the UAE. As can be seen, the volumes involved—compared to the potential size of the prize in the EU markets—are negligible.

TABLE 23: SAUDI ARABIA IMPORTS OF ALL GREEN BEANS BY VOLUME (TONS), 2003

Egypt	India	Jordan	Peru	Syria	Others	TOTAL
644	297	531	248	430	468	2,618

TABLE 24: SAUDI ARABIA IMPORTS OF ALL GREEN PEAS BY VOLUME (TONS), 2003

Belgium	Canada	Egypt	Syria	U.K.	Others	TOTAL
34	252	35	253	549	100	1,223

⁶¹ “Agri-business Exhibition Middle East” (brochure), IIR.

⁶² *Business Intelligence Middle East*. <http://www.bi-me.com/>.

TABLE 25: UAE IMPORTS OF ALL GREEN BEANS BY VOLUME (TONS), 2003

Bangladesh	Egypt	Iran	Jordan	Syria	16 Other	TOTAL
122	228	346	1,047	166	357	2,266

TABLE 26: UAE IMPORTS OF ALL GREEN PEAS BY VOLUME (TONS), 2003

Canada	Iran	Kenya	Pakistan	U.K.	16 Other	TOTAL
74	97	49	141	67	291	719

Source: FAO

Based on these volumes, the Middle East seems a less than obvious market to try to develop for the Tanzanian vegetable sector. As in other countries, the major end markets would be supermarkets, but the opportunities to enter these markets and win significant business in the Middle East, despite its geographical closeness to Tanzania, seem, at this stage, limited.

5.3 SOUTH AFRICA

South Africa is a fruit producer and exporter with significant presence on all major international markets such as the EU, Russia and the Former Soviet Union, Asia, and, to a lesser extent, the United States.⁶³ It is not, however, noted as being a major player in the international vegetable trade. This is underlined by the fact that South Africa only imports slightly more vegetable products than it exports. The five main suppliers of South Africa's vegetable imports in 2005 were Argentina, Thailand, India, Germany, and China; Tanzania was 24th in rank.⁶⁴

Currently, the trade balance for all products between South Africa and Tanzania is strongly in South Africa's favor. Exports to Tanzania totaled SAR1.8 billion in 2003; imports, SAR136 million. A possibly helpful development is that Tanzania and South Africa signed a memorandum of understanding on trade and industry programs and a general agreement on economic, scientific, technical, and cultural cooperation in 1998.⁶⁵ This would provide a basic framework for any trade development initiative in the horticultural export sector between Tanzania and South Africa, but it should be noted that Tanzania does not have a long track record of exporting to this market. This is not to say it could not be done, of course—but it is something that needs to be taken into account.

Far more than in other developing countries across Africa, there has been a rapid proliferation of supermarkets in South Africa. This trend, in turn, is transforming the food and agricultural systems that support these outlets, often cutting out smallholder farmers who cannot meet the supermarkets' high technical and commercial requirements. Small local produce markets are being replaced by supermarkets,

⁶³ Mainly apples, pears, grapes, citrus and stonefruits. The U.K. is by far the most significant market and accounts for about 50 percent of all EU imports from South Africa.

⁶⁴ South African Dept Trade and Industry Website: <http://www.dti.gov.za/>.

⁶⁵ http://www.southafrica.info/doing_business/sa_trade/agreements/trade_africa.htm.

and the fruit and vegetable markets in the region integrated into a single, larger market. This change is largely ascribed to the combined impact of urbanization and globalization.

By 2003, about 55 percent of South Africa’s urban food retail market was accounted for by the supermarket sector; in Kenya, by comparison, the figure was around 30 percent.⁶⁶ The development of the supermarket business in countries like South Africa does increase the quality of fresh foods, as they normally have higher standards for produce. This typically provides business and marketing opportunities for larger-scale growers who are able to adapt and supply the supermarkets—as has been the case in most other countries around the world (not least in the EU).

Since the end of apartheid in 1994, South African supermarket chains have also expanded throughout Africa. The Shoprite group of companies, Africa’s largest food retailer, operates 846 corporate outlets in 17 countries across Africa (including Tanzania), the Indian Ocean islands, and South Asia. It plans to open a further 91 stores in 2007, mainly in South Africa (www.shoprite.co.za). Other food retail chains from South Africa (SPAR, Woolworths, Pick ‘n Pay) and even Kenya (Nakumatt, Uchumi) are poised to expand their branches throughout Africa. As they grow, these chains will develop continental procurement systems, which will increasingly imply trade of food products from the best-source country to all the countries where they operate outlets. This implies both increased competition and increased opportunities for vegetable producers in Tanzania.

The growth of the South African supermarket trade will have an even more profound effect on the country's domestic production sector. Major South African growers and packers are looking to build business based on the growing domestic retail market. Smaller growers will be forced to meet the demands of major supermarkets to expand their share of the overall market. For Tanzanian growers to enter this market, they would need to develop even faster to offer supermarket-quality products preferable to those available from the South African supply base.

A government campaign has the potential to expand the market for horticultural goods. As with many other countries around the world, South Africa’s Department for Health is seriously trying to raise awareness of the health benefits of eating fresh fruit and vegetables with a Five-A-Day message. It claims major illnesses, including heart disease and certain cancers, can be reduced if people eat more healthily. Such a campaign might well boost consumption of fruits and vegetables, but it is likely to benefit locally based producers first and foremost, if it is successful.

Tables 27 and 28 below show the figures for South African imports from several sources for two vegetables. They give an indication of the size of import markets that might be expected for exotic vegetables from Tanzania. Total Kenyan exports of all horticultural products to South Africa are only just over 1,000 tons, including flowers and fruit products; it is likely that the volume accounted for by the specialty and baby vegetable sector is minimal.

TABLE 27: SOUTH AFRICA IMPORTS OF ALL GREEN BEANS BY VOLUME (TONS), 2003

China	Kenya	Thailand	Zambia	Zimbabwe	TOTAL
115	21	1	5	94	236

⁶⁶ FAO Article: “Rise of Supermarkets across Africa threatens small farmers” 8th October 2003.

TABLE 28: SOUTH AFRICA IMPORTS OF ALL GREEN PEAS BY VOLUME (TONS), 2003

China	India	Kenya	U.K.	Zambia	Zimbabwe	TOTAL
53	24	48	259	24	115	523

Source: FAO

At least in the short term, South Africa would not be the key priority market for Tanzania to target, despite its relative geographic proximity, the economic links between the two countries since 2003, and the potential business offered by the growth in the supermarket sector. Demand for high-value vegetables is likely to be absorbed primarily by large domestic producers. Secondary and much smaller volumes are likely to be sourced from neighboring countries and established trading partners with better developed production and marketing expertise for these products, such as Kenya, Zambia, and Zimbabwe.

The fact that these three countries still only export small volumes of products to South Africa, despite the ongoing process of urbanization and supermarket consolidation in the country, merely underlines the limited possibilities of South Africa as a target export destination for Tanzania in the coming years. As with the Middle East markets, the South African market represents useful incremental business to Tanzanians, not a major opportunity in its own right. Europe should remain the key target market, despite its numerous challenges.

Summary: South Africa's Market Potential

The South African market for imports of specialty vegetables is relatively small because the country has an adequate local production base.

- Imports are sourced from Kenya in modest amounts, as well as a number of other international suppliers.
- Tanzania has no track record of supply to South Africa.
- The market's growth will continue to be driven by supermarket developments.

Table 29 below summarizes the overall level of market opportunity that exists in the alternative markets of the Middle East and South Africa.

TABLE 29: POTENTIAL OF ALTERNATIVE EXPORT MARKETS

	Multiples (via major importers)	Wholesale (supplying foodservice and smaller retail)	Re-exports
Middle East	Low	Low	Low—and only via Dubai
South Africa	Low	Low	Medium

Source: Promar International, based on trade and desk research

6. APPENDIX

6.1 KEY INFORMANTS—CONTACT INFORMATION

Telephone interviews (October/November 2006) and in-person interviews (May 2007) were carried out with the following European companies:

Exotic Farm Produce—importers of high-value vegetables from Africa; Kenya: sugar snap peas, snow peas, green beans; Zambia: baby corn, chili peppers; Morocco: Tenderstem broccoli; Egypt: green beans, sweet potatoes, butternut squash; South Africa: butternut squash, asparagus.

Mani Estate, Skeldyke Road, Kirton, Boston, Lincolnshire PE20 1LR U.K.

Tel: +44 (0)1205 725500

Contacts:

Robert Levison, Managing Director

Clive Lawrence, Logistics Manager

Marcus Rayner, Agronomist

W. Bailey Ltd (Bomfords Group)—importer of high-value exotic vegetables, including leeks, mangetout, sugar snap peas, chili peppers, fine beans, broad beans, and baby corn from Tanzania. They also import from Egypt, Kenya, Zambia, Zimbabwe, South Africa, Morocco, Senegal, and Nigeria.

Head Office. 1st Floor, Unit 4, Dolphin Way Industrial Estate, Purfleet, Essex, RM19 1NZ

Tel 01708 685500. Fax 01708 680015

Contacts:

Alex Douse, W. Baily

Simon Hendry, Development Director, Bomfords

New Covent Garden Market Authority—leading produce wholesale market for London (by far), mostly supplying small-scale catering. London represents 50 percent of the HoReCa industry in the U.K.

Covent House, New Covent Garden Market

London SW9 5NX

Tel: 020 7720 2211

Contact: Helen Evans, Communications Manager

Mack Multiples—importer of mangetout, sugar snap peas, baby corn, baby zucchini, chili peppers, baby carrots, baby fennel, fine beans, and runner beans from South Africa, Zambia, and Kenya.

M & W Mack Limited, Transfesa Road, Paddock Wood, Kent, TN12 6UT

Tel: 01892 835577

Fax: 01892 831255

Contact: Rob Hooper, Exotic Vegetables Department

Wealmoor Ltd—import asparagus, chili peppers, baby corn, squashes, runner beans, green beans, fine beans, extra fine beans, mangetout, sugar snap peas, and composite packs, mainly from Kenya but also from Gambia, Zimbabwe, Zambia, and Egypt.

Jetha House, Springfield Road, Hayes, Middlesex, United Kingdom, UB4 0JT

Tel: +44 20-8867-3700

Fax: + 44 20-8867-3770

Contact: Stuart Hutchinson, Category Manager, Vegetables

Minor Weir & Willis—major U.K. importer and supplier of tropical fruit and vegetables, primarily to U.K. retail multiples.

241 Wellington Road, Perry Barr Industrial Estate, Birmingham, West Midlands, B20 2QQ

Tel: 01213 444554

Fax: 01213 314590

Contacts:

K. Metha, Managing Director

Steve Swain, Vegetable Category Manager

Vitacress Salads Ltd—Europe's leading growers and packers of watercress, rocket, baby leaf salads, and specialty vegetables.

Lower Link Farm

St. Mary Bourne

Andover, Hampshire SP11 6DB

Tel: +44 (0)1264 738766

The Fairtrade Foundation

Room 204, 16 Baldwin's Gardens

London EC1N 7RJ

Tel: +44 (0)20 7440 7679

John Arnold, Sourcing & New Product Development Manager

NETHERLANDS

Bud Holland—leading importer (and re-exporter) of exotic fruit and vegetables in Holland.

Source all relevant produce from: South Africa, Zimbabwe, Kenya, and Swaziland

Bud Holland B.V., Postbus 411, 3140 AK Maassluis, Transportweg 67, 2676 LM Maasdijk

Tel. 0174-535353

Fax 0174-513912

Contact: Peter Hobert, Director

Exotimex—used to import green beans, sugar snap peas, and mangetout from Kenya but now focused on ethnic vegetables—mainly sweet potato, butternut squash, and yams from South Africa and Ghana.

BV Exotimex, PO Box 154, 2740 AD Waddixveen, Netherlands

Tel: +31 180 454 654

Fax: + 31 180 454 656

Contact: Johannes Lachi, General Manager

Rift Valley Exports—marketing arm for Gomba Estates Ltd., Tanzanian produce exporter.

Postbus 1172

1430 BD Aalsmeer

Netherlands

Tel: + 31 (0)6 382 41 562

Fax: + 31 (0)20 489 83 74

Contact: Maarten Boeye

6.2 SELECTED BIBLIOGRAPHY AND REFERENCES

- Amani, H.K.R. "Making Agriculture Impact on Poverty in Tanzania: The Case of Non-Traditional Export Crops." Paper presented at Policy Dialogue for Accelerating Growth and Poverty Reduction in Tanzania, Economic and Social Research Foundation, Dar es Salaam, May 12, 2005.
- Bank, T.W. "The Impact of Food Safety and Agricultural Health Standards on Developing Country Exports." Summary of Report Number 31302. Poverty Reduction and Economic Management Trade Unit and Agriculture and Rural Development Department. Washington, D.C.: World Bank, 2005.
- Barrett, H.R., B.W. Ilbery, et al. "Globalization and the Changing Networks of Food Supply: The Importation of Fresh Horticultural Produce from Kenya into the U.K." *Transactions of the Institute of British Geographers* 24 (2), 1999.
- Bio-Siegel Germany website: <http://www.bio-siegel.de/>.
- British Retail Consortium Global Standards: <http://www.brc.org.U.K./standards/default.asp>.
- Business Intelligence Middle East*. Various articles, 2005–2006, www.bi-me.com.
- Castrillo, Javier. "A Wholesale Shift in European Groceries," *McKinsey Quarterly* 1, 2003.
- CBI (Centre for the Promotion of Imports from Developing Countries). *The Fresh Fruit and Vegetables Market in the EU*. CBI Market Study. Rotterdam, the Netherlands: CBI, October 2006.
- CBI: *EU Market Survey 2005: Fresh Fruit and Vegetables* www.cbi.nl.
- CBI: *EU Market Study of Organic Products*. CBI/ProFound. July 2005.
- COLEACP (Comité de Liaison Europe-Afrique-Caraïbes-Pacifique) website: <http://www.coleacp.org>.
- COLEACP. *EU Imports of Fresh Fruit and Vegetables from 1996 to 2002*. Paris: COLEACP, 2003.
- Department for Environment, Food and Rural Affairs (DEFRA). *Food Statistics in Your Pocket*. York, U.K.: DEFRA, May 2006.
- Dijkstra, T. "Commercial Horticulture by African Smallholders: A Success Story from the Highlands of Kenya." *Scandinavian Journal of Development Alternatives* 16(1): 49–74, 1997.
- Dijkstra, T. "Export Diversification in Uganda: Developments in Nontraditional Agricultural Exports." ASC Working Paper No. 47. Leiden, Netherlands: African Studies Centre, 2001.
- Dolan, C., and J. Humphrey. "Governance and Trade in Fresh Vegetables: The Impact of U.K. Supermarkets on the African Horticulture Industry." *The Journal of Development Studies* 37(2): 147–176, 2000.

- Dolan, C., J. Humphrey, et al. "Horticulture Commodity Chains: The Impact of the U.K. Market on the African Fresh Vegetable Industry." IDS Working Paper 96. Sussex, U.K.: Institute of Development Studies, 1999.
- Dunn, E., B. Akin, et al. "Highlights of Tanzania Diagnostic Trade Integration Study Recommendations: Selected for Relevance to the Tanzania High-Value Export Vegetable Value Chain." Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries (IF), 2006.
- GlobalGAP website: www.GlobalGAP.org/.
- The Fairtrade Foundation: www.fairtrade.org.U.K.
- The Fairtrade Labelling Organization International: www.fairtrade.net.
- FAO (UN Food and Agriculture Organization): *The Market for Non-Traditional Agricultural Exports. Raw Materials, Tropical and Horticultural Products Service Commodities and Trade Division*, 2004.
- FAO Newsroom. "Rise of Supermarkets Across Africa Threatens Small Farmers." October 2003.
- Freidberg, S. *The Contradictions of Clean: Supermarket Ethical Trade and African Horticulture*. Gatekeeper Series No. 109. London: International Institute for Environment and Development, 2003.
- Fresh Produce Journal. Re: Fresh Directory 2006*. London: Lockwood Press, April 2006.
- Fresh Produce Journal*. Various articles. 2004–2007.
- Food News*. Various articles, 2004–2007.
- GFAR-FAO-PHAction-FARA. "Report on the Pre-Plenary Session: The Sub-Saharan Challenge Programme and Global Post-Harvest Initiative—Linking Farmers to Markets." Meeting of the Global Forum on Agricultural Research/FAO/Global Post-Harvest Forum/Forum for Agricultural Research in Africa. Entebbe, Uganda, 2005.
- Gibbon, P. "Value-Chain Governance, Public Regulation and Entry Barriers in the Global Fresh Fruit and Vegetable Chain into the EU." *Development Policy Review* 21(5–6): 615–625, 2003.
- The Grocer*. Various articles, 2004–2006.
- Hallam, D., P. Liu, et al. *The Market for Non-Traditional Agricultural Exports*. Raw Material, Tropical and Horticultural Products Service Commodities and Trade Division. Food and Agriculture Association, UN. Rome: FAO, 2004.
- Harris, C., V. P. Hegarty, et al. *The Impacts of Standards on the Food Sector of Kenya*. PFID-F&V Report No. 1. Michigan State University and U.S. Agency for International Development. East Lansing, Michigan, and Washington, D.C.: 2001.
- Heri, Stanley T. *The Growth and Development of the Horticultural Sector in Zimbabwe*. UNCTAD Conference, 2000. Horticultural Crops Development Authority (HCDA) Kenya Website: www.hcda.or.ke.

- Humphrey, J., and C. Dolan. "Who Gains from the Boom in African Fresh Vegetable Exports?" *Insights* 33. Sussex, U.K.: Institute of Development Studies, 2000.
- Humphrey, J., N. McCulloch, et al. "The Impact of European Market Changes on Employment in the Kenyan Horticulture Sector." *Journal of International Development* 16: 63–80, 2004.
- Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries (IF). "Tanzania: Diagnostic Trade Integration Study." IF, 2005.
- Institute of Grocery Distribution (IGD): Various news articles and factsheets, 2005–2006. www.igd.com.
- Jaffee, S. *From Challenge to Opportunity: Transforming Kenya's Fresh Vegetable Trade in the Context of Emerging Food Safety and Other Standards in Europe*. Agriculture and Rural Development Discussion Paper No. 1. Washington, D.C.: The World Bank, 2003.
- Jaffee, S. *Southern African Agribusiness: Gaining Through Regional Collaboration*. World Bank Technical Paper No. 424. Washington, D.C.: World Bank, 1999.
- Johnson, M., A. Temu, et al. "Global Environment for African Agriculture." Paper presented at the InWent, IFPRI, NEPAD, and CTA conference "Successes in African Agriculture," Pretoria, December 1–3, 2003.
- Kirsten, J., and K. Sartorius. "Linking Agribusiness and Small-Scale Farmers in Developing Countries: Is There a New Role for Contract Farming?" *Development Southern Africa* 19 (4): 503–529, 2002.
- Levin, J., and R. Mbamba. "Economic Growth, Sectoral Linkages and Poverty Reduction in Tanzania." Background paper for the Tanzania CEM, Washington, D.C.: World Bank, 2004.
- Lewis, Helen. "The Top Ten European Retailers' Purchasing Trends." justfood management briefing, March 2006.
- McCulloch, N., and M. Ota. "Export Horticulture and Poverty in Kenya." Working Paper 174. Sussex, U.K.: Institute for Development Studies, 2002.
- Minot, N., and M. Ngigi. "Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Côte d'Ivoire." Paper presented at the InWent, IFPRI, NEPAD, and CTA conference "Successes in African Agriculture," Pretoria, December 1–3, 2003.
- Minten, B., L. Randrianarison, et al. *Supermarkets, International Trade and Farmers in Developing Countries: Evidence from Madagascar*. Strategies and Analysis for Growth and Access (SAGA) Working Paper. USAID, Cornell University, and Clark Atlanta University, 2005.
- Mwasha, A. M., and M. Leijdens. *Basic Data on Certified Organic Production and Export in Tanzania: Export Promotion of Organic Products from Africa*. Dar es Salaam, 2003.
- Neven, D., T. Reardon, M. Odera, and H. Wang. *Farm-Level Perspectives on the Impact of Domestic Supermarkets on Kenya's Fresh Fruits and Vegetables Supply System*. Department of Agricultural Economics Staff Paper 2005–05. East Lansing: Michigan State University, 2005.

- Neven, D. and T. Reardon. "The Rise of Kenyan Supermarkets and the Evolution of their Horticulture Product Procurement Systems." *Development Policy Review* 22 (6): 669–699, 2004.
- Neven, D. and T. Reardon. *South Africa's Rural Poor in the Era of Supermarkets: Adaptive Organizational, Institutional and Technological Responses to Access and Compete in Dynamic Markets—Policy Brief*. Report for the Partnerships for Food Industry Development—Fruits and Vegetables Project, Institute of International Agriculture. East Lansing: Michigan State University, 2005.
- Neven, D. and T. Reardon. "Modal Choice in International Alliances between Producers of Horticultural Products." In J.H. Trienekens and S.W.F. Omta, eds., *Paradoxes in Food Chains and Networks: Proceedings of the 5th International Conference on Chain and Network Management in Agribusiness*. Wageningen, the Netherlands: Wageningen Academic Publishers, 452–462, 2002.
- Nyambo, B., and R. Verschoor. *Partnership for Market Access: Towards a Sustainable Market-Oriented Horticultural Sector in Tanzania*. University and Research Centre Position Paper. Wageningen, the Netherlands: Wageningen University, 2005.
- Obare, G.A., and I.M. Kari. "Production and Productivity Effects of Informal Contract Farming in Kenya's Smallholder Horticultural Subsector." *Eastern Africa Journal of Rural Development* 19 (1): 13–23, 2003.
- Organisation for Economic Co-operation and Development (OECD). *Aid for Trade and Agro-Based Private Sector Development in Africa: Lessons from Tanzania and Zambia*. OECD Development Centre, September 2006.
- Omosa, M. "Export Horticulture and Livelihood Strategies: A Focus on the Opportunities and Constraints Facing Smallholder Farmers in Kenya." Discussion Paper No. 3. Sussex, U.K.: Institute for Development Studies, 2002.
- Partnerships for Food Industry Development—Fruits and Vegetables Project (PFID–F&V). *Analysis of the Ghanaian Fresh Fruits and Vegetables Industry*. Ghana Private-Public Partnership Food Industry Development Program. USAID and Michigan State University (MSU). East Lansing, Michigan: MSU, 2003.
- The Pesticide Residue Committee: www.pesticides.gov.U.K./prc_home.asp.
- Promar International. *A Case Study Analysis and Overview of the U.K. Horticultural Production Industry and Its Future over the Next 10–20 Years*. Paper prepared for the National Horticultural Forum. Tilstone Fearnall, Cheshire, U.K.: Promar, January 2006.
- Promar International. *Establishment of an Association of Eastern and Southern African Horticultural Exporters and Producers*. Paper prepared for the Commonwealth Secretariat. Tilstone Fearnall, Cheshire, U.K.: Promar, September 2001.
- Promar International. *The Competitiveness of ACP Products in the EU and Trade Opportunities in EFTA and Central Europe*. Tilstone Fearnall, Cheshire, U.K.: Promar, May 1995.
- Ranja, T. "National Entrepreneurship in the Export of Horticultural Products in East Africa." Working Paper No. 8. Dar es Salaam: Economic and Social Research Foundation, 2004.

- Schapiro, M. O. "Kenya's Export of Horticultural Commodities." *Public Administration and Development* 11: 257–261, 1991.
- Singh, B. P. "Nontraditional Crop Production in Africa for Export." In J. Janic and A. Whipkey, eds., *Trends in New Crops and New Uses*. Alexandria, Virginia: ASHS Press, 86–92, 2002.
- The Soil Association: www.soilassociation.org.
- The Soil Association: Organic Market Report, 2006
- South African Department of Trade and Industry Website: <http://www.dti.gov.za/>.
- Stevens, C. "Food Trade and Food Policy in Sub-Saharan Africa: Old Myths and New Challenges." *Development Policy Review* 21(5–6): 669–681, 2003.
- Temu, A.E., and A.A. Temu. "High Value Agricultural Products for Smallholder Markets in Sub-Saharan Africa: Trends, Opportunities and Research Priorities." Paper prepared for workshop, How Can the Poor Benefit from the Growing Markets for High Value Agricultural Products? International Center for Tropical Agriculture, Cali, Colombia, October 3–5, 2005.
- University of California (U.C.) Davis and the World Vegetable Center (AVRDC). *Global Horticulture Assessment*. USAID, U.C. Davis, AVRDC, Michigan State University, Purdue University, and the University of Hawaii, Manoa. 2005.
- UNCTAD: *The Costs of Agri-food Safety and SPS Compliance: United Republic of Tanzania, Mozambique and Guinea: Tropical Fruits*. Division on International Trade in Goods and Services and Commodities. UNCTAD, 2005.
- "Kenya Off-Season and Speciality Fresh Vegetables and Fruits: Lessons of Experience from the Kenya Horticultural Industry," UNCTAD background paper, 2001.
- UNEP and UNCTAD. The Status of Organic Agriculture Production and Trading Opportunities in Tanzania. *Project on Promoting Production and Trading Opportunities for Organic Agriculture in East Africa, Final Report*. 2006
- USAID. *Roadmap for Improved Horticulture Export Competitiveness in Malawi, Mozambique, Tanzania and Zambia*. USAID Southern Africa Global Competitiveness Hub and Chemonics International. Washington, D.C.: USAID, 2004.
- USAID/Tanzania website: www.tanzania.usaid.gov.
- Weatherspoon, D.D., Neven, D., Fotsin, R., Katjuongua, H.B., and T. Reardon. *The Rise of Supermarkets in Africa, Private Standards for Quality and Safety of Fruits and Vegetables, and Implications for Producers*. RAISE SPS Regional Report No.3. Bethesda, Maryland: DAI, 2003.
- Weatherspoon, D., and T. Reardon (2003). "The Rise of Supermarkets in Africa: Implications for Agricultural Systems and the Rural Poor." *Development Policy Review* 21(3): 333–355.
- World Grower*. Various articles 2006.
- World Health Organization Website (food safety, HACCP, and so forth): www.who.int.